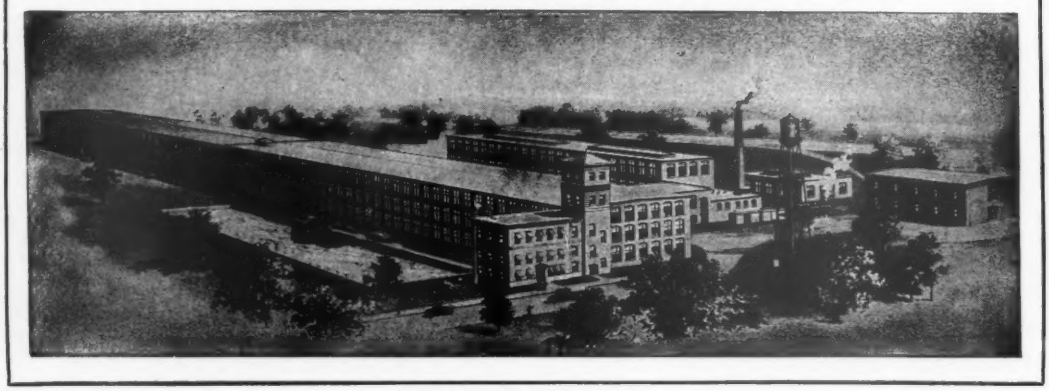
/2
Technology

Lowering the chip charge preparatory to filling a digester in the Longview Mill, Pulp Division Weyerhaeuser Timber Company, Longview, Washington. Weyerhaeuser's modern Longview mill produces bleached sulphite pulps.

Pulp & Paper

PACIFIC INDUSTRIES

Vol. 15 • No. 1 JANUARY 1941



THE HOME OF ALBANY FELTS

Felts For:

Leather Board
Straw Board
Box Board
Bristol Board
Tissue
Bond
Writings
Insulation Board
Mulch Paper
Straw Paper
Wrappings
Glassine
Newsprint
Cellucotton
Wall Board
Soda Pulp
Sulphite Pulp
Building Papers
Asbestos Papers
Cement Shingles
Blotting
Book
Chip Board
News Board
Cover
Kraft
Ledger
Manila
Rope
Ground Wood Pulp
Binders Board
Toweling
Condenser Paper
Bottle Cap Board
Catalogue
Envelope
Container Board
Hanging
Coating Boards
Coating Papers
Tag Board

SPECIALIZATION

Ours is a specialized business—that of making *good* paper machine felts. It is different from any other textile business in the world.

Our designers, spinners, weavers, research chemists, finishers, are all specialists with years of sound experience in felt making. Some of them have followed their particular line of work for 25 years.

Machinery, too, is *special*. Much of it is of our own design.

Our resources and world-wide experience have led the paper industry to bring all manner of problems to us involving the use of felts.

If you have an unusual machine condition which is bothering you, let us know about it. Perhaps we can help you.

ALBANY FELT COMPANY

ALBANY, NEW YORK

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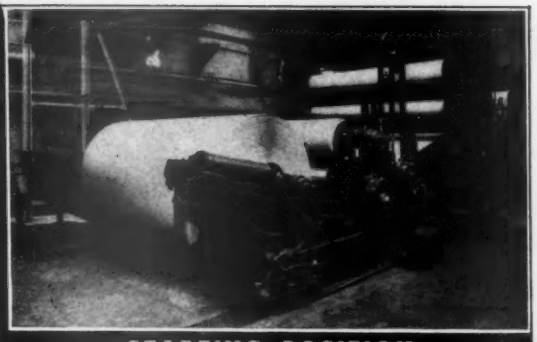
BELOIT

BOARD MACHINE

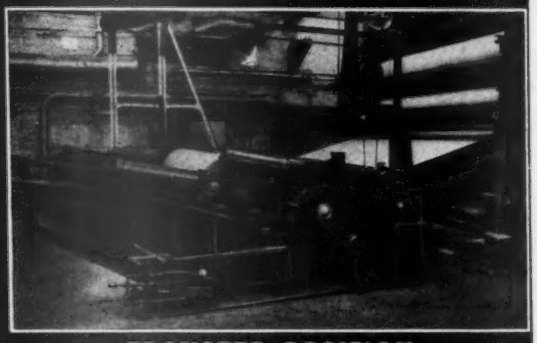
Reel

PATENTED



STARTING POSITION

FINAL WINDING POSITION



TRANSFER POSITION

DESIGNED FOR VERY HEAVY DUTY—TO WIND UP TO 78" DIAMETER ROLLS.

AIR PRESSURE, INDEPENDENTLY APPLIED TO FRONT AND BACK SIDES OF REEL SPOOL, MAINTAINS CORRECT WINDING CONDITION FOR GOOD ROLLS.

AIR PRESSURE CAN ALSO BE USED TO RELIEVE THE WEIGHT OF THE ROLL BEING WOUND.

NO BROKE WHEN CHANGING SPOOLS.

CAN BE INSTALLED ON PRESENT MACHINES.

THE BELOIT WAY IS THE MODERN WAY

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS

BELOIT IRON WORKS BELOIT WISCONSIN

TECHNOLOGY
1047311

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By actual measurement, this enormous assembly room with its three overhead cranes, represents only 1/35th of the total roofed area of the Black-Clawson • Shartle • Dilts plants. This is visual proof that Black-Clawson • Shartle • Dilts is geared to meet **all** your machinery needs.

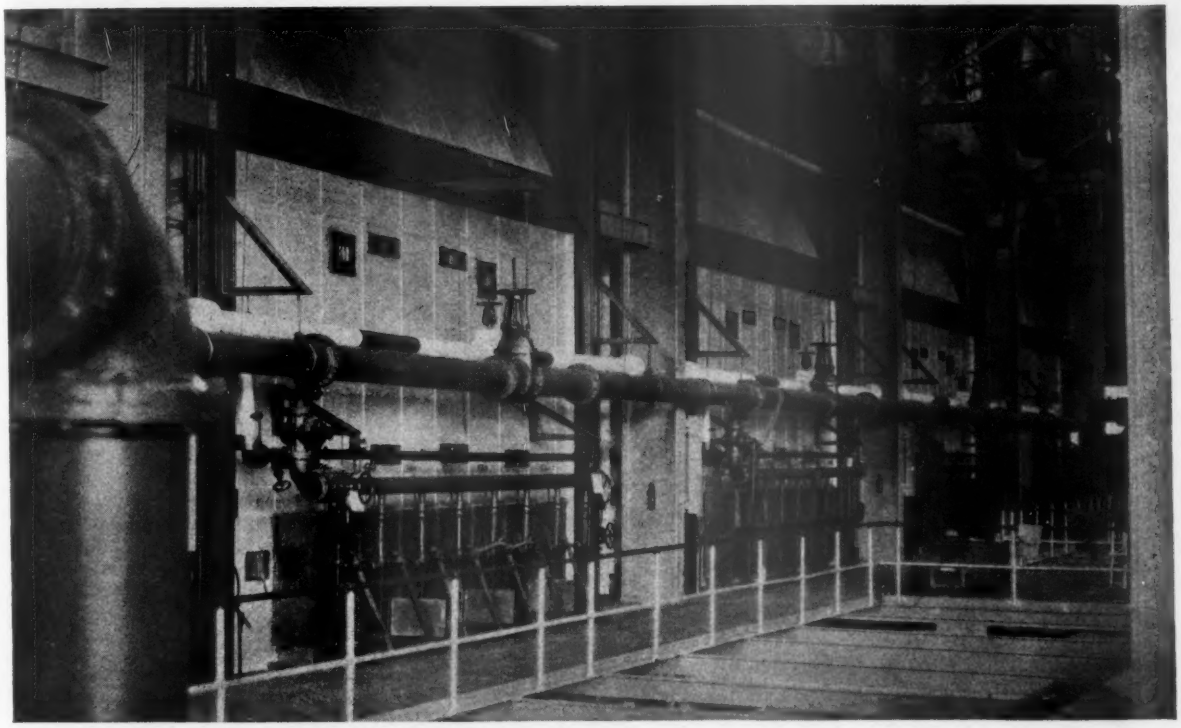
Also consider these important points: Since you can here obtain everything in stock preparation and machine room equipment, you have the opportunity to center responsibility at one point, with no slips due to divided authority.

Furthermore, since B-C-S-D engineers handle **all** paper mill equipment, they know exactly how each type of machine will fit into your entire production arrangement. In other words, from Black-Clawson • Shartle • Dilts you get not only soundly designed ***machinery***, but soundly designed ***installations***. Both are vitally important to you.

The next time you decide to make a change in your mill, call in our Pacific Coast representative, Mr. Robert Petrie, 3206 42nd Ave. N. E., Portland, Ore.

The Black-Clawson Co., Hamilton, Ohio. Operators of Shartle Bros. & Dilts

BLACK-CLAWSON • SHARTLE • DILTS



Four of ten boilers at Texas Gulf plant, Newgulf, Texas

Interesting Facts about SULPHUR *not Generally Known*

Hot Water

"To be in hot water," generally means to be in trouble. "To be out of hot water" means trouble at a Sulphur mine. Here thousands of gallons of water at about 300° F. are required daily to melt the Sulphur in the sulphur domes. A stoppage in the hot water supply means that production ceases. ☆ The uninterrupted flow of Sulphur from the mines of Texas to the pulp, chemical, metallurgical and other industries is assured by the facilities maintained by the Texas Gulf Sulphur Company at Newgulf, Texas. Here are installed ten boilers of the Sterling type, each having a rated capacity of 1500 horsepower. Here are produced more than four tons of steam a minute at 100 to 125 lb. gage pressure to heat the mine feed water. ☆ Judged on any basis this is an enormous amount of power harnessed to make available to industry an unfailing supply of Sulphur.

TEXAS GULF SULPHUR CO.
75 E. 45th Street New York City
Mines: Newgulf and Long Point, Texas

BULKLEY, DUNTON PULP CO

INCORPORATED

295 MADISON AVENUE, NEW YORK

Pacific PULP & PAPER Industry

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No European Pulp Until Nazi Control Is Broken

Says Sir Keith Price, President of the British Wood Pulp Association speaking at annual meeting.

● Until the Nazi control of the continent of Europe is broken there can be no resumption of exports of pulp from the Baltic countries, Sir Keith Price, president of the British Wood Pulp Association, told the members at their annual meeting in London, November 22nd.

He outlined events of the past year as they affected the British importers of pulp in a talk which follows in part:

"Profound changes have taken place in world affairs in the past year. Events have moved so rapidly that one is apt to overlook certain phases of the war that have so adversely affected this industry of ours. At the time of our meeting a year ago the war had been in progress for only three months—the war of blockade and counter-blockade, imposing many restrictions on business, shipping and finance, handicapping but not vitally affecting our trade. At the end of November, however, the first sign of change took place when Russia took advantage of the European situation to follow the example already set by Nazi Germany in making outrageous demands for territorial concessions from a smaller neighbor. To her great honor Finland refused voluntarily to surrender her rights, with the result that she was attacked without provocation first by air and then by land, by a nation many times her size. The defence which the Finns put up and the gallantry shown by all won the admiration of the whole world. For a time it seemed that the impossible might be accomplished, but in the end weight of numbers prevailed and Finland accepted a harsh peace rather than see her whole country in the hands of the invader. During this period exports of wood pulp were continued, despite immense difficulties due to shortage of labor and aerial attacks on mills, railways, docks and steamers, against which there was practically no defence.

"Wood pulp of all kinds continued to come into this country from Norway and Sweden, but unfortunately there followed the German invasion of Norway and Denmark, carried out without a shadow of excuse or justification. This double invasion, cunningly planned and unscrupulously put into effect, resulted not only in the Norwegian wood pulp industry passing into the hands of the enemy, but in the closing of the Baltic, putting a stop to trading with both Sweden and Finland; but when the Allies recaptured Narvik it seemed that there might be an opportunity for Sweden, and to some extent Finland, resuming shipments on a limited scale through this port, but our eventual withdrawal, and the establishment of a Nazi submarine base at Kirkenes, made the Northern routes impossible.

"For the first time since wood pulp began to be used for paper making, this country became entirely cut off from its regular sources of raw materials, resulting in numerous contracts entered into many months before not being fulfilled—a severe blow to the paper making industry and to all of us. It is true that small quantities have always been imported to this country from the Dominion of Canada and America, but these did not amount to more than 2 per cent of the whole. In this emergency, this country has turned still further to Canada and the United States of America, but the tonnage available obviously is very far below the tonnage normally imported from Northern Europe, but under the greatly restricted program of manufacture which the Controller of Paper has had to put into effect, it has, I believe, been sufficient to supply the paper mills here.

"As president of your association I am more sorry than I can say that the work which we all have put in over many years to help build up and maintain the wood pulp industry of this country with Scandinavia and Finland has been brought for a time to a close, but it is useless to pretend that there is any likelihood of change until the Nazi stranglehold on the Continent of Europe has been broken.

"Whilst we here are naturally concerned with the serious results which the War has had upon our own business, I should like to say on behalf of all the members of this Association how deeply we deplore the immense difficulties which have overtaken the leaders and peoples of Northern Europe; countries that have had a genuine desire to maintain good relations with us and whose livelihood depended to such a great extent upon the maintenance of trade with this country. Through no fault of their own our friends, the pulp mills, are suffering for the militaristic motive and greed of one group of people, but we believe that a Government appointed and maintained by force cannot endure, and although we know this War may be a long and a hard one, we have the utmost faith in our leaders and complete confidence in the outcome."

Ship Brings Small Quantities of Finnish Pulp

● Only small quantities of pulp and paper are filtering through from Finland's Arctic port of Petsamo. The last week in December the Finnish steamer Easbjorn arrived in New York with a cargo of pulp and paper.

The steamer discharged 1,925 bales of prime strong sulphite pulp and 3,534 bales of prime strong sulphate pulp. As a bale weighs approximately 400 pounds the 1,925 bales of sulphite pulp would amount to 385 short tons, and the 3,534 bales of sulphate pulp would total 707 short tons.

In addition the Easbjorn brought 353 rolls of Finnish newsprint, 1,310 rolls and about 1,000 bales of wrapping paper; and 615 bales of cigarette paper.

E. S. Collins Passes In Portland

● The timber and pulp and paper industries of the Pacific Northwest lost one of their outstanding men through the recent death of E. S. Collins in Portland.

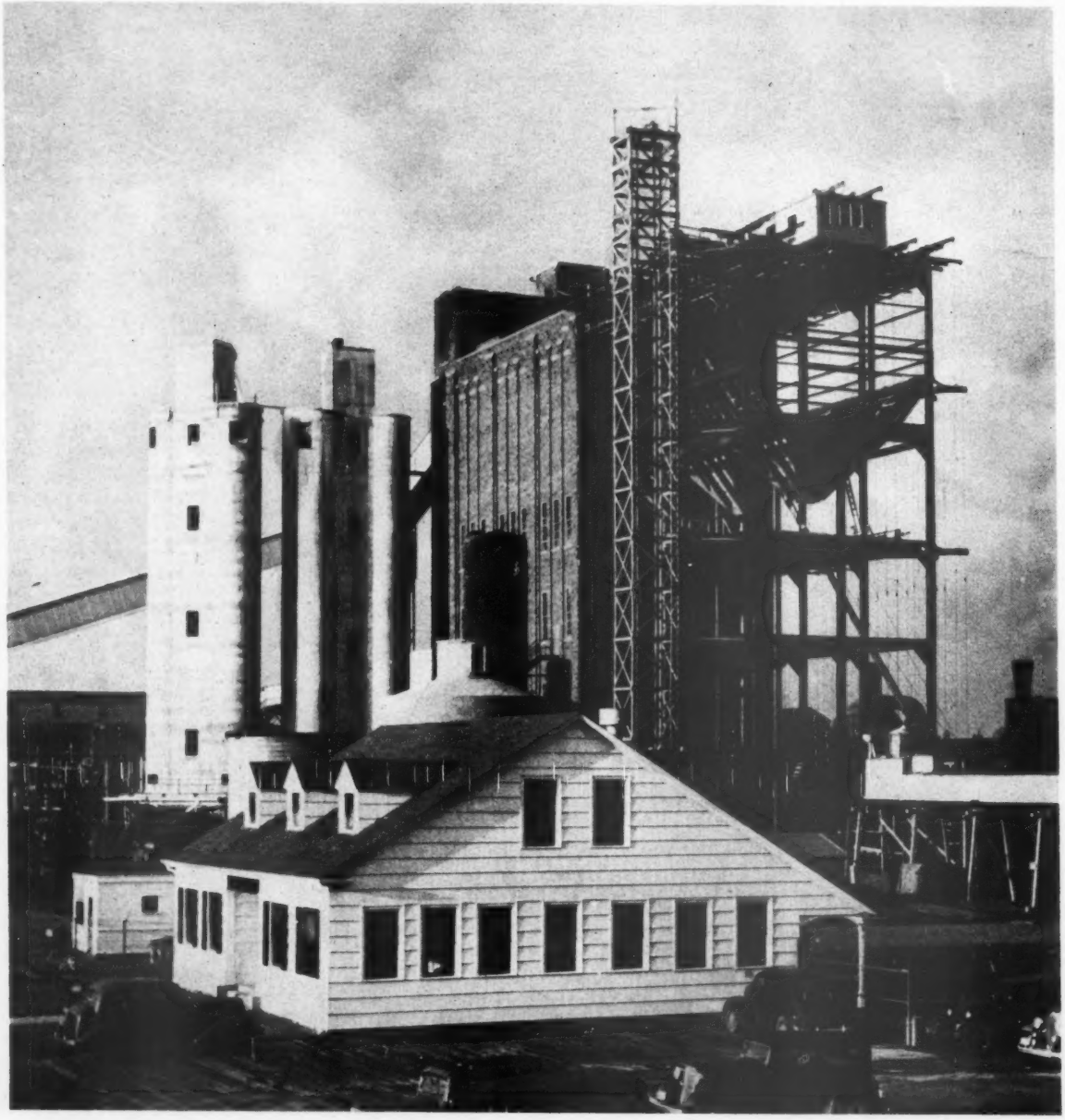
Mr. Collins came to this region in 1889 and entered the timber industry at Ostrander, Washington. As logging and lumbering grew in the Pacific Northwest, Mr. Collins participation increased apace.

His principal connection with the pulp and paper industry was as a stockholder and director of the St. Helens Pulp & Paper Company of St. Helens, Oregon. From the days of its organization until his death Mr. Collins was actively interested in the St. Helens mill and his business ability was an important factor in the company's profitable operations.

Mr. Collins was a man of many business interests. In addition to his connections with the pulp and paper industry he was interested in the Ostrander Railway and Timber Co.; Silver Lake Railway and Timber Co.; Ochoco Timber Co. (Eugene); Curtis, Collins and Holbrook, San Francisco; Grand Ronde Pine Co., Cowlitz Towing Co.; Cowlitz Development Co.; Sheffield & Tionesta Railway Co., Sheffield, Pa.; Tionesta Valley Chemical Co., Olean, N. Y.; United States National Bank of Portland. He owned the Cook oil lease at Mayburg, Pa.

In 1903 Mr. Collins served in the Washington State Legislature. He moved to Portland in 1918 and resided there until his death in December of last year.

Although his business interests were extensive he devoted a large part of his time and wealth to civic, religious and



The PUGET SOUND PULP & TIMBER COMPANY'S construction schedule moves right along ' ' ' These pictures, taken January 4th, show the progress of construction on the company's three-digester unbleached sulphite pulp unit ' ' ' On the left are the new Jenssen acid towers ' ' ' On the right the steel work extension of the digester addition is completed and brick work begun along with the erection of the digesters ' ' ' The new unit is scheduled to begin operations March 15th ' ' ' In the foreground is the office building.

philanthropic work. He was a trustee of the Portland Council of Churches, Portland Methodist Deaconess Association, Portland Methodist City Church Extension Society, Goodwill Industries of Oregon and of several local churches.

His philanthropies were performed quietly and very few were known to the general public. Both friends and strangers sought and were willingly given advice and help.

Mr. Collins is survived by his widow and three children, Truman W. Collins, Mrs. Elmer R. Goudy, both of Portland; and, Alton L. Collins, Oakdale, California.

Corrugated Kraft Containers Lease Large Oakland Space

● Corrugated Kraft Containers, Incorporated, late in November leased for ten years the upper floor of Terminal Building "C" from the Port of Oakland, California.

The company, a subsidiary of the National Container Corporation, will engage in the manufacture and distribution of corrugated paper containers and boxes. Materials used in fabrication of the boxes will be shipped by water from the company's board mill at Jacksonville, Florida, and will add approximately 15,000 tons annually to the cargo movement through Oakland's outer harbor terminal.

Machinery was shipped from Jacksonville and the plant was expected to begin operations in January employing approximately 100 persons.

The walls of the PUGET SOUND PULP & TIMBER COMPANY'S new drying machine room are nearly completed / / / Erection of the third Flakt dryer is well under way following its arrival from Sweden via Petsamo, Finland, New York and the Panama Canal / / / A corner of the screen room built in 1938 appears at the left of the picture.

TAPPI Discusses Water Treatment

● The third Dinner Meeting of the Pacific Section of TAPPI's 1940-1941 season was held Tuesday evening, January 7th at Camas, Washington. One hundred and eleven men were present to hear the discussion of "Water Requirements in Pulp and Paper Manufacture."

Fred A. Olmsted, chairman of the Pacific Section of TAPPI and technical supervisor of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation at Camas, presided.

Mr. Olmsted introduced Niles M. Anderson, chairman of the Pacific Coast Division of The American Pulp & Paper Mill Superintendents Association and general superintendent of the St. Regis Paper Company, Kraft Pulp Division, Tacoma. Mr. Anderson announced that the executive committees of the Superintendents and of TAPPI had tentatively decided to hold a joint meeting in Portland, June 6th and 7th under the general chairmanship of Harry H. Richmond, chief engineer of the Electric Steel Foundry Company. Work has begun on the program, Mr. Anderson said, and details will be announced later.

Mr. Olmsted introduced Brian Shera, service engineer of the Pennsylvania Salt Manufacturing Company of Washington, Tacoma.

Mr. Shera introduced Ben S. Morrow, city engineer and manager of the Water Bureau, City of Portland; Sydney J. Benedict, hydraulic and maintenance engineer, Water Bureau, City of Portland; Roy M. Harris, director, Washington State Department of Health, Olympia; Carl E. Green, sanitary engineer, State of Oregon; and, Curtis M. Everts, Jr., Oregon State Board of Health.

At the speakers' table with Mr. Olmsted were G. W. Charters and A. G. Natwick, assistant resident managers of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas; Earl G. Thompson, Great Western Division, The Dow Chemical Company, Seattle; Brian Shera, service engineer, Pennsylvania Salt Manufacturihg Company of Washington, Tacoma; Otto L. Hudrlik, district service engineer, The Flox Company, Incorporated, Portland; Edward P. Wood, technical director, Longview Mill, Pulp Division, Weyerhaeuser Timber Company, Longview, and chairman of the meeting; G. O. Wilson, The Dorr Company, Inc., Spokane; R. S. Hatch, research director, Weyerhaeuser Timber Company, Longview; William R. Gibson, manager, Northwest Filter Company, Seattle; and, W. Norman Kelly, manager Longview Mill, Pulp Division Weyerhaeuser Timber Company, and vice chairman of the Pacific Section of TAPPI.

Mr. Olmsted turned the meeting over to Mr. Wood as chairman of the water treatment discussion. The outline and the statements are included in a separate article in this issue.

At the conclusion of the meeting Mr. Olmsted announced that the next dinner meeting will be held in Tacoma, Washington, on Tuesday evening, February 4th. The place and the program will be announced within a couple of weeks.

The following men attended the Camas Dinner Meeting:

Burton R. Adams, Hawley Pulp & Paper Co., Oregon City; **Leslie L. Anderson, Pulp Division,** Weyerhaeuser Timber Co., Longview; **Niles M. Anderson,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **R. E. Astle,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Geo. Bailey,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **W. R. Barber,** Central Technical Dept., Crown Zellerbach Corp., Camas; **E. P. Barthelemy,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Geo. H. Beisse,** Pulp Division, Weyerhaeuser Timber Co., Longview.

C. H. Belvin, Chromium Corp. of America, Portland; **Sydney J. Benedict,** Portland Water Bureau, Portland; **Louis H. Blackerby,** Pacific Pulp & Paper Industry, Portland; **Robt. A. Bremner,** Electric Steel Foundry Co., Portland; **Thos. F. Buford,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Robley Butler,** Crown Willamette Paper Co.. Division of Crown Zellerbach Corp.. Camas; **Claude Callaghan,** The Flox Company, Tacoma; **G. R. Chambers,** Pulp Division, Weyerhaeuser Timber Co., Longview; **G. W. Charters,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **R. E. Chase, Jr.,** R. E. Chase & Co., Portland.

Claud Christiansen, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Fred Covell,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **J. D. Darby,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **O. T. Defieux,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **R. E. Drane,** St. Helens Pulp & Paper Co., St. Helens; **Alec C. Duncan,** Hercules Powder Co., Portland; **M. L. Edwards,** Pulp Division, Weyerhaeuser Timber Co., Longview; **A. E. Erickson,** Pulp Division, Weyerhaeuser Timber Co., Longview.

Donald Erickson, Oregon Pulp & Paper Co., Salem; **John T. Evans,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Curtiss M. Everts, Jr.,** Oregon State Board of Health, Portland; **Lyle G. Fear,** Westinghouse Elec. & Mfg. Co., Portland; **Donald G. Felthous,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Francis W. Flinn,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **M. J. Franklin,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **G. H. Gallaway,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **William R. Gibson,** Northwest Filter Co., Seattle.

Harry Glenn, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **D. C. Greeley,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Carl E. Green,** Oregon State Sanitary Engineer, Portland; **H. W. Hall,** Dicalite Co., New York City; **R. N. Hammond,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Roy M. Harris,** Washington State Dept. of Health, Seattle; **R. S. Hatch,** Weyerhaeuser Timber Co., Longview; **S. Hazelquist,** Pulp Division, Weyerhaeuser Timber Co., Longview; **W. J. Higbie,** Hercules Powder Co., Portland.

W. S. Hodges, Orr Felt & Blanket Co., Portland; **J. G. Hoffman, Jr.,** Drew & Hoffman, Portland; **Clyde F. Holcomb,** Edison Storage Battery Supply Co., Seattle; **W. F. Holzer,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Otto L. Hudrlik,** The Flox Company, Portland; **J. H. Hull,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Henry Jacobsen,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **W. C. Jacoby,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Lyal Jones,** Pulp Division, Weyerhaeuser Timber Co., Longview.

W. N. Kelly, Pulp Division, Weyerhaeuser Timber Co., Longview; **Robert B. Kirkwood,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **John LeTourneux,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **J. Raymond Lindquist,** Hawley Pulp & Paper Co., Oregon City; **John J. Lobb,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **G. A. Lorenz,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **R. W. Martig,** Brown Instrument Co., Portland; **T. R. Martin,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Vern L. Mauerman,** Pulp Division, Weyerhaeuser Timber Co., Longview.

G. H. McGregor, Pulp Division, Weyerhaeuser Timber Co., Longview; **Cornelius John Meagher,** Crown Wil-

lamette Paper Co., Division of Crown Zellerbach Corp., Camas; **O. F. Michaelis,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Paul F. Miescke,** Pulp Division, Weyerhaeuser Timber Co., Longview; **P. V. Millard,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **H. Norman Miller,** Westinghouse Elec. & Mfg. Co., Portland; **R. G. Mispley,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **T. H. Moran,** Pulp Division, Weyerhaeuser Timber Co., Longview; **C. W. Morden,** Morden Machines Co., Portland; **Ben S. Morrow,** Water Bureau—City of Portland.

A. G. Natwick, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **A. Newcomb,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Max R. Oberdorfer,** St. Helens Pulp & Paper Co., St. Helens; **F. A. Olmsted,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **A. W. Olson,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **F. M. Pape,** Wilson & Geo. Meyer & Co. Seattle; **Morris M. Peterson,** Pulp Division, Weyerhaeuser Timber Co., Longview; **John C. Plankenton,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **E. D. Rich,** Oregon Pulp & Paper Co., Salem.

Herman Richard, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **C. B. Roberts,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Grant D. Ross,** St. Regis Paper Co., Kraft Pulp Division, Tacoma; **H. L. Rudow,** Scientific Supplies Co., Portland; **Jack V. Savage,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Barton W. Sawyer,** Northwest Filter Co., Portland; **Harlan Scott,** Pacific Pulp & Paper Industry, Seattle; **Brian L. Shera,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma; **D. L. Shinn,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Lawrence K. Smith,** Pacific Pulp & Paper Industry, Seattle.

L. E. Stevenson, Pulp Division, Weyerhaeuser Timber Co., Longview; **C. F. Stevey,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Bert E. Sullivan,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **F. F. Sullivan,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **A. Ward Tedrow,** Hawley Pulp & Paper Co., Oregon City; **Earl G. Thompson,** Great Western Division Dow Chemical Co., Seattle; **V. L. Tipka,** Hawley Pulp & Paper Co., Oregon City; **R. M. True,** General Dyestuff Corp., Portland; **R. O. Vognild,** Hooker Electrochemical Co., Tacoma.

R. D. Waddell, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Lebanon; **John E. Walkky,** Crown Zellerbach Corp., Portland; **Fred J. Weleber,** Hawley Pulp & Paper Co., Oregon City; **C. Kelly Wells,** Seattle; **L. E. Williams,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Jack Wilcox,** Electric Steel Foundry Co., Portland; **G. O. Wilson,** Dorr Co., Inc., Spokane; **Chas H. Witt, Jr.,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas; **Zina A. Wise,** Griffith Rubber Mills, Portland; **Edward P. Wood,** Pulp Division, Weyerhaeuser Timber Co., Longview; **Herbert Wymore,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas.

St. Regis Holds First Christmas Party

● The first annual Christmas Party of the St. Regis Paper Company, Kraft Pulp Division, Tacoma, held December 26th at the Winthrop Hotel, was attended by more than three hundred department executives, employees and officers, and their wives and friends. A turkey dinner with all the trimmings was served in the main dining room. An orchestra, community singing led by Otto Ferguson, several solos and duets by Arvid Peterson and Mr. Ferguson and Archie Obiser with his guitar made up the musical treat for the guests during dinner.

Niles Anderson, general superintendent of St. Regis Paper Company, acted as toastmaster and kept things lively and interesting. Mr. Ossian Anderson, vice-president of the company, responded briefly to his introduction and expressed the pleasure he felt over having had a part in developing the Tacoma mill into one of the most modern bleached kraft pulp mills and a major contributor to Tacoma's industrial progress. "I hope," he said, "that we may have many meetings such as this during the years to come where we, who are all employees of the company, may get together and learn to know one another better. I am happy to meet so many of you informally."

Mayor Harry Cain of Tacoma delivered a splendid address which was both humorous and of serious import.

Following the showing of the sound moving picture "Magic Fibers" the guests were entertained with dancing on the Roof Garden of the hotel.

At the head table during the dinner were Mr. and Mrs. Edward Hunter; Mr. and Mrs. Weldon Hunter; Mr. and Mrs. Ossian Anderson; Mr. and Mrs. Niles Anderson; Mr. and Mrs. O. B. Hays; Mayor and Mrs. Cain.

Weyerhaeuser Presents New Technicolor Movie

● The Weyerhaeuser Timber Company has completed the filming of a sequel to its highly successful talking moving picture "Trees and Men" which was released three years ago and has been viewed by over 9,000,000 people in the 48 states and several foreign countries.

The new picture, "Trees and Homes," is in Technicolor with the narration by James A. Fitzpatrick, known to moviegoers as "The Voice of the Globe."

A preview of the new picture was held at the Lakewood Theater on January 9th to which several hundred Northwest men and women were invited. The showing of the picture, which requires a half an hour, was followed by dancing in the Lakewood Community Hall.

"Trees and Homes" show the beauties of the Pacific Northwest forests in their natural colors. The story of private enterprise in timber cropping and management is simply told, the audience seeing for itself how the timber industries have been put on a permanent basis to provide stable employment for the men and women who work in them.

Starting with a marvelous view of Mount St. Helens from Spirit Lake, "Trees and Homes" moves on through the big timber taking account of today's logging methods, area and tree selection logging, the provision for natural and artificial reforestation; the manufacture of trees into lumber and thence its transformation into homes. Other wood using industries, pulp and plywood, are briefly pictured to emphasize the value of a permanent supply of timber to the life of the country. The initiative of private enterprise and its provision for the future are clearly portrayed.

The Technicolor picture was photographed in the Weyerhaeuser Timber Company's diversified operations. The script was prepared by Roderic Olzendam of the Weyerhaeuser Timber Company in Tacoma. The picture will be available for group showings throughout the country.

Canadian Government to Aid Newsprint, Pulp Industries

● A recent report of the Forest Products Division, U. S. Department of Commerce, stated that:

"Canada's pulpwood and newsprint industry is expected to be one of the first of the Dominion's industrial activities to receive Government assistance, in view of the expressed desire of Canadian authorities to maintain and where possible increase exports in order to accumulate United States exchange.

"Indications are that sales of Canadian newsprint to the United States during the present year will approximate $120,000,000, a total substantially higher than that recorded for 1939. It is contemplated that the Government will make applicable special allowances for depreciation or depletion of capital assets for newsprint companies engaged in export trade. Such action would enable the companies to maintain their current condition of operation and make available at least $100,000,000 in United States currency.

"Canadian paper mills are not expected to expand their capacity in the immediate future. Plants are geared to a production of 4,300,000 tons a year with an average output of 3,400,000 tons, leaving a margin of practically a million tons. Canada is receiving some relief from this situation through the medium of increased exports to South America and additional shipments of newsprint to the United Kingdom. At the present time Canada is supplying approximately 70 per cent of United States newsprint requirements as compared with 61 per cent before the outbreak of the present war.

"It has been suggested in Canada that the Government may permit the cost of new machinery for newsprint plants to be taken out of the first two years' profits ahead of taxes, in the same way that this is being done for many of the new war-manufacturing plants. The action proposed would be similar to that taken in the United States in permitting a five-year period of amortization on governmental loans for expansion of war industries with a corresponding non-payment of taxes covering each annual payment against the loan."

Foley Visiting In Florida

● Harold Foley, president of Powell River Company, is spending several months in Florida, his former home.

Outline and Discussion of "Water Requirements in Pulp and Paper Manufacture"

"WATER Requirements in Pulp and Paper Manufacture" was the subject discussed at the first dinner meeting of the Pacific Section of TAPPI to be held in 1941. Pacific Section chairman Fred A. Olmsted had appointed Edward P. Wood, technical director, Longview Mill Pulp Division Weyerhaeuser Timber Company, as leader of the discussion.

Mr. Wood prepared the outline that follows and arranged for the several experts on water treatment to participate in the panel discussion designed to amplify the outline. Following the formal presentation questions were raised from the floor and answered by the men taking part in the panel discussion.

The method, a departure from the ordinary presentation of papers, resulted in a thorough canvassing of the problems of purifying water for use in the manufacture of pulp and paper and, when completed, left the audience with but few anticipated questions of a general nature, unanswered.

When the guests sat down to dinner they found at each place a copy of the outline to be followed by those participating in the discussion.

Taking part in the panel discussion with Mr. Wood were; William R. Gibson, manager, Northwest Filter Company, Seattle; Otto L. Hudrlik, district service engineer, The Flox Company, Incorporated, Portland; Earl G. Thompson, Great Western Division, The Dow Chemical Company, Seattle; G. O. Wilson, The Dorr Company, Incorporated, Spokane, Washington; and, Brian Shera, service engineer, Pennsylvania Salt Manufacturing Company of Washington, Tacoma.

Mr. Wood opened the discussion stating that the outline would be enlarged upon by the men to be introduced and that he appreciated their willingness to cooperate in the discussion of water treatment. Water, said Mr. Wood, was the lifeblood of the pulp and paper industry. However, its qualities vary over a wide range and frequently these variations develop in a few hours' time. The mill operators ought to never take the qualities of their water supply for granted, but keep a constant vigil to maintain as uniform a combination of qualities as possible. Water, he said, is a major factor in determining the final quality of pulp and of paper.

I. INTRODUCTION

A. Past Experience and Lack of Foresightedness

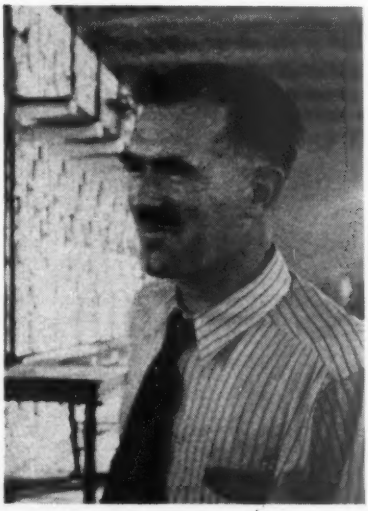
B. Experience of Last 10 Years

1. Most substantial changes having taken place

● The introduction was given by William R. Gibson, manager, Northwest Filter Company, Seattle. Quoting Mr. Gibson:

"It may be worth while to draw attention to the fact that very great changes have taken place in the practice of water purification during the last few years, and particularly during the past ten years.

"The practice with regard to rapid sand filters in the early days was based upon practice with slow sand filters, and changes took place gradually over a long period. Some ten or more years ago there began the setting up of real standards of materials which made possible standards of operating efficiency. These in turn became the basis for improvements in design and operation of filtering plants. In connection with these improvements probably the name of John R. Baylis of Chicago stands out for the very important contributions he has made. These improvements relate to the feeding of chemicals to the water, and the control of such feeding, and in particular to improvement in methods of flocculation, which will be described by later speakers."



EDWARD P. WOOD, Technical Director, Longview Mill, Pulp Division Weyerhaeuser Timber Co., who led the TAPPI discussion on Water Treatment.

II. IMPURITIES IN WATER

A. Suspended Matter

1. Organic and Inorganic

B. Dissolved Solids

C. Colloidal

D. Color (Super-Colloidal)

E. Iron and Manganese Removal

● On the subject "Impurities in Water," Otto L. Hudrlik, district service engineer, The Flox Company, Incorporated, Portland, stated the problem as follows:

"In any discussion of water treatment, we must consider not only the materials we are trying to remove, but also the effect of the materials which will remain dissolved in the water and affect the efficiency of the coagulating chemicals. Those to be removed are suspended material—organic and inorganic, colloidal materials, and iron and manganese. The dissolved solids affect the action of the purifying chemicals, and may be organic or inorganic.

"Inorganic suspended matter usually consists of clays, pulverized rocks and stone, and other materials most of which contain silica in some form. Organic suspended matter consists of decaying vegetable and animal matter, and living microscopic organisms.

"After these materials have been acted on by the water, many of them have been broken up finely enough that they are invisible in an ordinary microscope. When this stage is reached, they are termed colloids. Colloids are smaller than .001 millimeter in diameter, but are not yet completely in solution. Because of their small size and the electric charges they have acquired in the process of becoming colloidal, they are difficult to remove. Color in surface water is nearly always caused by organic colloids; in fact the color of tea and coffee is due to colloids.

"Iron and manganese require special treatment, and fortunately do not present a problem in the lower Columbia, although some of the tributaries of the Columbia do have considerable iron and manganese contamination.

"In this discussion we do not propose to give the ultimate answer because of several factors. First, all equipment has merit when properly used, and the same applies to chemicals. Second, there is constant progress, and what might be the answer today might be antique tomorrow. Third, before the Columbia River passes Longview, there are fifteen large rivers emptying into it. Most of these rivers have a different type of water, and the characteristics of all of these change seasonally, and some of them overnight. By way of illustration, turbidity on the various branches may run from 0 to 10,000 parts per million, color 0-200, soap hardness 5-200 parts per million, alkalinity 10-200 ppm, silica 5-50 ppm. Fortunately the Columbia has a good mixture of all of these, but because of this wide variation any prediction or attempt at prediction from day to day, or from year to year, is useless, and almost a sure way to get into trouble.

"The reason for water filtration is to avoid trouble, and to improve operating conditions, and quality of product. If there is suspended material, color, iron, or manganese in the water, the pulp fibers will act exactly in the same way as the coagulant should act, and remove these contaminants. The resulting pulp or paper will be colored or contain dirt and spots. Living organisms do the same thing, and that will be discussed next."

F. Living Organisms

1. Algae

2. Slime

● Earl G. Thompson, Great Western Division, The Dow Chemical Company, Seattle, discussed "Living Organisms" as follows:

"For purposes of the paper mill, living organisms are of two types algae and slime. Either class may consist of microscopic animal or vegetable life or both. Algae causes trouble in the raw water and filter plant, and slime grows in the white water system. Factors affecting the life cycle of micro-organisms are briefly as follows:

1. Food supply.
2. Moisture.
3. Air tension, or oxidation-reduction potential.
4. Temperature.
5. Innoculation.
6. Chemical Environment, pH and toxic agents.
7. Light.

"In order for algae and slime to grow, it is essential that there be an ample supply of food and moisture. Some micro-organisms will remain dormant for years without moisture and become active again in the presence of sufficient moisture. All micro-organisms have an optimum temperature and pH for growth. Any deviation from this optimum will retard or stop growth. Only algae require light. The most common algae are Diatoms which require silica in the life cycle, Fungi or molds, and the green and blue-green algae types. There are a few types which require iron or sulphur in the life cycle, and these types are chiefly responsible for iron spots in the sulphite or kraft mills. Toxic agents have varying degrees of effect on different types of algae and slime forming bacteria.

"Some bacteria decompose to form organic acids after completing the life cycle. This retards or stops further growth, but also causes a weakening or decomposition of the pulp fibers. In the filter plant, it is necessary to kill the algae before they can be coagulated well by clarifying chemicals. Algae are ordinarily handled by chlorine, chloramines, copper sulphate, or combinations. Slime forming bacteria are present to a lesser degree in fresh water, but in whitewater systems control is accomplished with chlorine, chloramines, copper salts, organic toxic agents, or combinations."

III. CLARIFICATION OF WATER

A. Chemicals Used

1. Primary

a. Aluminum Salts

b. Iron Salts

2. Secondary

a. Lime

b. Soda Ash

c. Caustic

● On "Chemicals Used for Clarification," Otto L. Hudrlik, The Flox Company, Incorporated, spoke as follows:

"Chemicals are used to enclose the colloids and suspended solids in an envelope which collects large numbers of small particles into a large mass which settles readily and sweeps other fine particles to the bottom. Primary or coagulating chemicals consist of iron salts and aluminum salts. Iron salts require a high pH for completion of the reaction, and if reactions are incomplete, traces of iron in the filtered water are likely to cause rust spots. Consequently, these are seldom used for paper mill supply clarification, and not at all on Columbia River water.

"Aluminum salts include the different alums: filter alum, paper makers alum, potassium alum, sodium alum, and ammonium alum; and Sodium Aluminate. Alum consists of aluminum oxide combined with sulphuric acid and sodium aluminate is aluminum oxide combined with caustic soda. Further, the aluminum cation in Alum has a positive charge, and the aluminate anion has a negative charge. Therefore, it would seem reasonable to expect that alum would be good for coagulating negative colloids, and sodium aluminate for coagulating positively charged particles. This actually happens, since the waters on which sodium aluminate works well with alum have been found to contain a higher ratio of positively charged colloids, than those which work well with alum alone.

"Secondary chemicals might be called by other names, but their main purpose is pH adjustment. From the chemical standpoint there are three important factors in coagulation; namely pH, coagulating ion such as sulphate or chloride, and sufficient coagulant. Of the three, pH ranks second to sufficient coagulant, and consequently it is often necessary to employ alkaline chemicals such as lime, caustic, or soda ash or sodium aluminate to obtain the correct coagulating pH. It is also frequently necessary to use some of these chemicals to make the water less corrosive to mains and equipment, if it has been necessary to coagulate at a low pH, or if a corrosive condition exists."

3. Artificial Turbidity

a. Clays

b. Bentonite Clays

c. Activated Alum

d. Silicate of Soda

● Mr. Wood stated that where artificial turbidity was found necessary to increase the flocculation, clay was added first. This has been found to produce the best results.

In producing artificial turbidity, Mr. Wood said that ordinary paper making clays had been found satisfactory in many cases. Bentonite

clays have also been used in producing artificial turbidity. Activated alum and silicate of soda have been employed for this purpose, too, but there is not much data available as yet on the results obtained by their use. Some mills report success and some failure. Study is being continued.

B. Removal of Living Organisms

1. Treatment

a. Chlorine

b. Ammonia

● Brian Shera, service engineer, Pennsylvania Salt Manufacturing Company of Washington, Tacoma, spoke on the removal of living organisms through treatment with chlorine and ammonia.

"Calcium hypochlorite was first used for the treatment of water about 1907," said Mr. Shera, "and chlorine gas was employed first around 1914. The early application was to the treatment of domestic water supplies.

"Not until the early 1920's was chlorine gas used by pulp and paper mills for the control of living organisms. The use of chlorine gas in the industry gained momentum about 1928 and most mills now employ it in controlling slime forming bacteria.

"In 1930 it was discovered that if 2 to 4 pounds of ammonia per million gallons were added to the chlorine (2 to 4 times the quantity of ammonia) the treatment was much more effective in killing the living organisms."

c. Salts of Copper, Mercury and Silver

d. Organic Toxic Agents

● In connection with the removal of living organisms with salts of copper, mercury and silver, Earl G. Thompson, Great Western Division, The Dow Chemical Company, Seattle, stated that:

"Salts of copper, mercury, and silver are very toxic to nearly all classes of microscopic organisms, but of these copper sulphate is the one which has found ready application because of its low cost, availability, and lower tendency toward corrosion. However, any of these materials should be used cautiously, especially in drinking water. The use of copper sulphate is widely known, and further information about its toxicity to various organisms can be obtained by consulting the bibliography.

"Aeration, although not a chemical, is a process which nature invented, perfected, and used before we thought of using chemicals. It combines two distinct processes: oxidation, and actual aeration. By oxidation, iron and manganese are precipitated; organic material of many types is removed; and hydrogen sulphide is practically eliminated. Aeration actually blows out of the water such materials as carbon dioxide, oxygen, hydrogen sulphide, sulphur dioxide, and many organic materials. The two processes overlap in many instances, and there is no reason for trying to segregate them in this discussion.

"Organic toxic agents find application in many places where the use of other materials is unsatisfactory, undesirable, or where there are interfering materials present which reduce the effectiveness of chlorine or copper sulphate. These have been found particularly useful in the treatment of cooling waters, certain power plant applications, and paper mill white water systems.

"Organic toxic agents include mostly highly substituted phenolic compounds and organo-metallic compounds. The development and application of these chemicals is recent and intensely interesting. Although it is quite evident that the work is only in its infancy, it has been rapid, and as with many other organic developments, it is extremely difficult to forecast what the limit is likely to be.

"A summary of the advantages in white water systems includes stability of the organic toxic agent in the presence of large quantities of other organic materials. That means that a killing dose may be maintained over a large portion of the system, over a long period of time. Dead ends in pipe lines and other spots difficult to clean mechanically may thereby be thoroughly saturated with chemical, and eventually maintained at a much more nearly sterile condition. There is no discoloration of pulp, no loss of strength, and control is relatively easy."

C. Equipment

1. Introduction of Chemicals

a. For Sterilization

(1) Incoming Water

(2) Clear Well

● Under the outline heading of "Introduction of Chemicals," Mr. Shera of the Penn Salt Company stated that, "Chlorine is corrosive and equipment used in its handling must be designed and built for the service. Iron is satisfactory when the gas is dry but cannot be used when moisture is present. Silver is very satisfactory for use at the point where chlorine is introduced into the water being treated. If moisture is present with chlorine gas rubber, rubber lined pipe or glass must be employed to avoid corrosion.

"For years," said Mr. Shera, "orifice meters have been used for feeding chlorine in measured quantities into the incoming water, but these are being replaced by the Rotameter which feeds proportionately according to the pressure of the gas, and the action is fully visible."

b. For Coagulation

(1) Dry Feeder

(2) Solution Feeder

c. For Artifiicial Turbidity

● On the subject of "Introduction of Chemicals" under the heading "For Coagulation," Mr. Gibson discussed the dry feeder and the solution feeder.

"A dry feeder is a device for mechanically feeding to the water flowing to the purification plant, dry chemicals at a rate which can be adjusted within fine limits, and in some cases it is provided with proportioning equipment which proportions the feed to the flow. The general type is that in which a revolving knife divides off a definite amount of dry chemical fed to it from a conical hopper above, and discharges it into a hopper or basin, where it is diluted with water and the solution is carried into the incoming water. In general the maximum amount of water which can be carried should be fed to the chemical supplied from the dry feeder."

"A solution feeder," said Mr. Gibson, "is a variation of the method of feeding, and is used only in smaller plants. In the solution feeder a measured amount of dry chemical is dumped into a solution tank provided with an agitator, where it is mixed until dissolved, and from the solution feeder by means of a constant head and adjustable orifice device, a definite amount of solution can be fed to the incoming water."

2. Flocculation

a. Static Method (By flow and baffles)

b. Mechanical

3. Sedimentation

a. First Factor—To obtain the minimum-maximum velocity

b. Different Types

(1) Circular or Continuous

(2) Rectangular

● On the subject of Clarification of Water by Flocculation, the following statement was made by G. O. Wilson, The Dorr Company, Incorporated, Engineers, of Spokane:

"There are many conflicting theories concerning the mechanics of flocculation but one generally accepted is that suspended solids usually carry either negative or positive charges of electricity and when these charges are neutralized by chemicals and the particles are made to collide an adhesion is possible. Flocculation then involves the grouping of non-settleable particles into groups or aggregates that will settle.

"Accordingly the two factors that influence flocculation are the probability of collision and the probability of adhesion after the collision.

"If it is assumed that the raw water has been properly conditioned by the addition of chemicals and that each collision results in adhesion the extent of flocculation is dependent on the probability of collision. The gentle mixing by mechanical flocculations is to exercise some control over the probability of collision and the object is to change the random motion of any particle into a motion that will more nearly approach the maximum number of collisions per unit of time.

"Flocculation and sedimentation are very closely related and the progress of water treatment has revolved around these two functions largely. The result is that greater overflow rates in clarifiers are possible, detentions are of shorter duration, recirculation of sludge can be controlled, filter runs are longer and rates higher and a substantial savings in chemicals can usually be made. The modern plant can be smaller than the older types of plants due to the more efficient flocculation and sludge removal.

"Since the early stages of hit or miss coagulation, followed by continuous sludge removal, developments have been rapid. Flash mixing of chemicals and flocculation entered the picture in units separate from the clarifier. Recirculation of sludge gained headway. Next the flocculations were placed in the clarifier basin adjacent to the sludge collecting mechanism. Later the flocculation became a part of the collecting mechanism permitting deep sludge blankets. More attention was paid to flocculation and less to flash mixing. Present units are compact and provide for all of these functions including the mixing of chemicals in the presence of thick sludge so that the reactions are completed rapidly and the water filters upward through the sludge blanket. By these actions a completely flocculated system is always maintained and a type of sludge is maintained which settles rapidly to leave a well clarified water.

"Units can be either circular or rectangular and many features of more modern practices can be incorporated in existing plants."

4. Filters

a. Types

(1) Gravity
(2) Pressure } No essential difference

b. Capacities

● The types of filters were described by Mr. Gibson.

"There is no material difference between a gravity and a pressure filter so far as operation is concerned. It is often suggested that a pressure filter will be cheaper than a gravity filter, but in fact where sedimentation is required and a sedimentation basin has to be provided, there will be little if any difference in the cost of a pressure filter as against a gravity filter. In fact, due to the visibility of the gravity filter it is much to be preferred in all cases where possible. There is however, one condition under which the pressure filter should be seriously considered. This occurs where there is a supply of water with an initial head sufficient to feed the plant without pumping, and with some slight surplus head. In such a case, provided the solids in suspension in the water are not too high, it is possible that satisfactory results can be obtained by passing water under pressure through a pressure filter and on to the plant, with a considerable saving in pumping costs which would be involved if a gravity type filter were used."

(1) Filtering Rates

"There is considerable difference of opinion as to filtering rates," said Mr. Gibson; "but as in most other details of filter construction or operation, the question of filtering rates depends upon the conditions under which the plant has to operate. The standard filtering rate for municipal plants is two gallons per square foot per minute. The standard filtering rate for swimming pool filters is three gallons per square foot per minute. On the other hand, we know of industrial plants operating at rates as high as six gallons per square foot per minute and producing water satisfactory for the purpose for which it is required.

"It is esential in considering filtering rates (1) to study the water to be filtered, in its worst condition; and (2) to design the plant for the maximum filtering rate which may be possible and desirable.

c. Construction

(1) 30″ Sand
(2) 18″ Gravel } For Standard 4′ 0″ Bed

"The standard construction for the filter bed is 30 inches of sand and 18 inches of gravel," stated Mr. Gibson. "There are slight variations in these figures which are sometimes used, but these approach the standard very closely. The 18 inches of gravel is usually made up of at least four different sizes of gravel, varying in size from 2½ to 3 inches on the bottom layer, to ordinary pea gravel on the upper layer. In considering the size of gravel and size of sand to be used in the bed it is important to remember that in general the specific gravity of filter sand is appreciably higher than the specific gravity of gravel. Locally the gravel has a specific gravity of about 2.2 whereas our filter sand runs about 2.6 to 2.75. There is, therefore, an appreciable difference in specific gravity, and to avoid overturning of the filter bed due to the gravel tending to rise up into the sand bed, careful attention must be paid to the grading of size through the bed. Our practice is to use three sizes of sand: (1) On top of the fine gravel goes a sand about 2 mm in size. (2) Above the 2 mm we use sand 1 mm in size. (3) Finally, above the 1 mm sand is the true filter sand, usually about 18 inches in depth and with a grain size of 0.45 mm. If this is properly

installed and if the gravel bed is kept free of flat particles and pieces of low specific gravity, there should be no danger of overturning the bed under any ordinary conditions.

"This is subject, of course, to proper control of the wash rates, which is again referred to in a later part of the discussion.

"It might be well here to say something regarding the different kinds of filter sand. We have heard a discussion regarding the comparative merits of sand of which the grains are substantially round (in fact almost spherical), and the California sands, which are the so-called sharp sands, that is, the edges show a broken outline. The Monterey sand in particular consists of parts which tend to be flat, with sharp edges.

Our experience suggests that given round particles and sharp particles of the same grain size it is possible to get cleaner effluent at the same rate or equally clean effluent at a higher rate than is possible with the round grained filter sand. Presumably this is due to the greater surface available for the collection of floc on the sharp sand."

(3) The Magnetite Filter

● During the outlining of the construction of filters, G. O. Wilson of Spokane, with The Dorr Company, Incorporated, Engineers, gave the following description of the Magnetite Filter:

"The Magnetite Filter is a rather new type of sand filter where the sand bed is very shallow, around 4 inches, and is supported on screens slightly finer than the sand particles. The "sand" is closely sized magnetite, an iron ore with magnetic properties.

"Instead of backwashing as in the case of regular rapid sand filters, the washing is carried out by lifting and dropping the sand through the water. A moveable solenoid, across the bed, is arranged on tracks so that in passing over a section of the bed it is magnetized and raises the magnetic sand. When the solenoid is de-magnetized the sand drops back into position leaving the particles which have collected on the sand in suspension. A small pump following the solenoid discharges the turbid water to waste and the clean bed is ready to further use.

"The Magnetic Filter can be arranged for up-flow or down-flow and filtering rates are high. Some of these filters have been arranged as an annular ring around the periphery of a clarifier or clear well, others are long rectangular multiple units."

d. Distribution System (Underdrain)

(1) Top Side–Flumes, or collector pipe

Mr. Gibson continued, "The flume or collector pipe is a device mainly used for collecting and carrying off the wash water, but in most cases it also serves to help distribute the raw water for filtering. In practice, the flumes are built so that the edge forms a weir, which should be almost perfectly level, and the spacing of the flume is such that no part of the lip of this weir will involve the water leaving the bed traveling too great a distance in a horizontal direction, the object, of course, being to ensure that the water will travel through the filer bed at a uniform rate over the whole of its surface.

"In practice the filter bed is arranged so that at no point does the water make an angle greater than 45 degrees. In other words, if the lip of the weir is 24 inches above the sand bed then the distance from the weir of one flume to the weir of the next flume would not be more than 48 inches.

(2) UnderdrainSystem

"The underdrain system," said Mr. Gibson, "is a device to ensure uniform distribution of the wash water coming to the filters, and since in practice the amount of wash water required per square foot of filter area is from five to seven times the amount filtered, it is obvious that considerable care must be taken in the designing of the underdrain system to ensure this even distribution.

"In the early days it was common practice to put a perforated plate at the bottom of a filter and it was assumed that the water would flow evenly through perforations, but if you consider the high velocities of flow into the filter, which is unavoidable with high wash rates, the effect of this velocity was bound to involve uneven distribution, and high flow rates through part of the filter bed, tending to turn the filter bed over and destroy the efficiency of the system.

"The most common practice at the present time is to form the underdrain system of piping, and in practice the piping system is laid out so that there is a very definite loss of head through the header and branches, and in this way the velocity head of the incoming water can be dissipated and comparatively uniform distribution ensured.

"Even with careful dsigning, however, it will be found there is as a rule slightly geater flow through the perforations at the further end of the underdrain system from the inlet, due to this velocity effect already referred to."

(a) Cast Iron Laterals

(b) More Modern Construction

1. Copper

2. Transite

"In the early days underdrain systems were constructed of perforated steel, wrought iron or cast iron. A later development was the use of brass or bronze ferrules, rolled into the perforations in the steel or iron laterals, which prevented or delayed corrosion and improved performance quite materially. In still more modern construction, however, the use of transite and copper piping has increased considerably for the obvious reason that they are practically free from corrosion, and therefore the design head loss and flow can be relied upon for many years."

e. Controllers

(1) Rate of Flow (Filtering Rate)

Mr. Gibson continued, "The rate of flow controller is a device to limit the flow through the filter bed to a predetermined maximum. In actual practice the main purpose served by the rate of flow controller is to prevent the clean bed from being overworked when put into service while other beds on the same system are still dirty. When controllers are not used this effect causes considerable trouble in any filter plant, since it is the tendency of the clean bed to absorb much more than its share of the water to be filtered, with the result in most cases that the floc, or sediment, is carried deep down into the filter bed, causing difficulty in washing it out again, and in some cases carrying right through the filter bed for an aprpeciable time after the filter has been washed.

(3) Wash Rate

"The important thing about the wash rate controller is that it should never allow more than the predetermined rate to be applied to the bed, and in practice it is advisable to so arrange the wash rate controller that its rate of opening is quite slow, to ensure that the film on top of the bed is broken more or less uniformly and to let the upward flow be established gradually to prevent flotation of the sand bed from the bottom instead of from the top.

"In passing it might be well to say a word about wash rates. The tendency of late years has been to increase rates, the standard rate today being about 15 gallons per square foot per minute, which corresponds to the rise of water level of 24 inches in one minute. In actual practice rates higher than this have been and can be used, and it is our belief that the tendency to higher rates is justified in most cases.

"The rate is partly determined by the nature of the sediment and partly by the qualities of the filter sand. It should be noted, however, that increase in the wash rate does not imply an increase in the total amount of water used for washing. In fact in most cases, increasing the wash rate will reduce the total amount of water used, because of quicker washing and improved performance from the bed when washed at the higher rate.

"Reference should also be made to the effect of water temperature in changing the water viscosity. A lowering of viscosity reduces the efficiency of the washing water considerably, and many plants find trouble in keeping their beds clean in the summer, due to the fact that the temperature of the water has risen and its viscosity has been reduced accordingly.

(3) Loss of Head Gauges

"It is a question whether this should be called Loss of Head or Increase in Head, but in fact it is a device to show the increase in friction loss through the filter bed caused by the gradual filling up of the filter surface. It usually consists of a float carried in a tube, which is installed between the rate controller on the effluent piping and the filter. When the filter is clean the level of water in this pipe will usually be about one foot below the level of the water in the filter basin. As the filter basin becomes dirtied up the level of water in this pipe will fall, and the float attached to a dial with suitable reducing gear then becomes a measure of the loss of head.

f. Wash System

(1) Wash Tank

"A wash tank is required on most filter systems to provide the large amount of wash water required over a short period, and is usually placed at about a 50-ft. elevation above the bottom of the filter beds, though some systems are designed for lower and some for higher heads than this. It is entirely a case of the design of the washing system.

(2) Pump System

"Obviously the same results could be obtained by a pump which would pump at the rate required to wash the individual beds, but unless the system has a very large storage capacity or consists of a very great number of filter units, the pump system will disturb the flow of water to the industry or city quite substantially. This is easily realized when we coinsider that in washing the bed one unit has been removed from service and has to be washed at a rate equal to the capacity of five or more additional units. Where the number of filter units is between ten and twenty the pump system is quite out of the question. When it approaches forty or more then it is possible that the wash tank can be eliminated and the washing be done by pumping directly from the clear well storage.

g. Auxiliary Washing Devices

(1) Mechanical Scrapers

"The mechanical scraper was one of the early methods of obtaining increased life from a filter bed, but if you agree that better filtration is obtained when a film has been built up on the surface of the filter bed, then obviously the breaking of this film by a mechanical scraper, while it may allow the bed to last longer, cannot but lower the efficiency of the filter, resulting in a poorer quality effluent.

(2) Surface Wash Systems

"Within the past few years surface wash systems have come into some prominence. Essentially, surface wash consists of a series of jets so arranged that when the sand is expanded by the wash water these jets will direct a stream of water at an angle of about 15 to 30 deg. below the horizontal, causing a high rate of agitation of the sand grains, and increasing the upward flow rate of the wash water. This results in a very substantial improvement in the washing of the beds, and has been quite successful.

"A later variation of this is a traveling surface wash pipe which rotates or travels longitudinally across the bed, washing one part at a time.

(3) Compressed Air

"Compressed air was used quite considerably some years ago to improve washing. It is my impression that the increased wash rates which have come into use during later years have considerably reduced the value of compressed air. It is seldom used nowadays."

IV. LABORATORY CONTROL

A. Jar Tests

1. Speed of Agitation

2. Interpretation of Results

B. pH Control

C. Turbidity, Color, Alkalinity

D. Residual Chlorine

E. Dissolved Oxygen

● On the problem of "Laboratory Control," Otto L. Hudrlik, The Flox Company, Incorporated, Portland, made the following statement:

"As discussed earlier, forecasts based on experience with no other information are inaccurate and dangerous. However, by means of chemical control, we have methods of obtaining information which will lead us to much clearer reasoning. It is because chemistry and other physical sciences have been actively used, that the art of water purification has become a science.

"The daily tests which are now considered standard in a filter plant are: jar tests, pH, turbidity, color, alkalinity, and chlorine residual. Jar tests might be called laboratory tests to determine the efficiency of coagulant, and efficiency of trial doses of coagulant in a jar usually one-

half to one gallon in capacity. Trial doses of chemical are added to several samples at the same time, and the process is carried through the mixing and sedimentation stage. After that comparisons are made on pH, alkalinity, turbidity, rate of settling, soluble alumina, and any others necessary. After some experience, the operator will learn to correlate results obtained in jar tests with those expected in the plant. These tests are empirical in nature, and it is therefore necessary to maintain conditions as nearly uniform as possible. And the tests should be made as soon as possible after drawing the sample with minimum temperature variation from actual water conditions.

"pH is usually tested colorimetrically because of the convenience of the method. However, if it is desired to get absolute values, it is important that the colorimetric method be standardized against some more reliable method such as the glass electrode. These methods have now been developed so that instruments which test pH in this manner are reliable.

"Turbidity and color are tested by comparison with standards, or the electric eye. Turbidity of finished water should be below 1 part per million, and color is normally expected to be below 5.0 ppm.

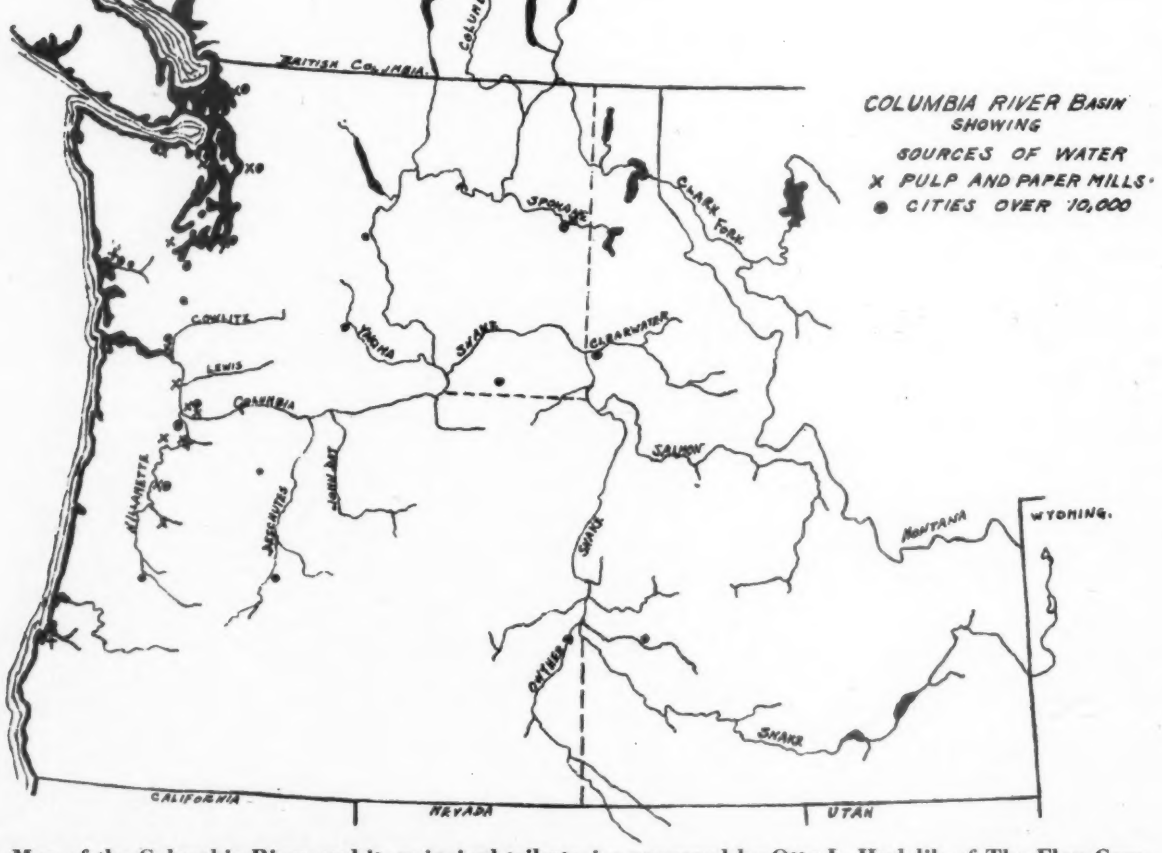
"The alkalinity test is widely known, and needs no further discussion.

"The test for dissolved oxygen has recently become quite widely used in municipal practice. There are two reasons for this: corrosion, and index of the amount of organic material in the raw water. Since oxygen oxidizes organic material, it is readily understood that high oxygen would normally indicate low organic, and low oxygen would indicate high organic.

"To obtain an index of corrosion, the filtered water is tested as it enters the mains, and at the end of the mains. After a series of these tests has been made over a period of time, corrosion preventatives are applied, and another series of tests is made. The oxygen lost in the mains is a direct indication of the amount of iron dissolved in the water mains. By comparing the results of the two runs, information about the effectiveness of the corrosion preventive measures is obtained.

"A chart quite widely used in municipal water works practice shows the relation between pH, alkalinity, and free carbon dioxide. It does not necessarily follow that this exact relation will hold true for all waters, but it is expected that a chart of this type made for a particular water would be reasonably accurate throughout the year. This is used to determine the amount of alkaline material needed to adjust the pH to a predetermined point at which corrosion is prevented."

On the subject of "Laboratory Control," Brian Shera of the Penn Salt Company, said that a satisfactory test for residual chlorine was



Map of the Columbia River and its principal tributaries prepared by Otto L. Hudrlik of The Flox Company, Inc., to show the large number of different water sources contributing to the Columbia and the possibilities of sudden variations in the qualities of the water in the river which is used by a number of pulp and paper mills.

Orthotolidin solution. Its accuracy covers the normal range of residual chlorine in water after treatment, but if there is an excessive residual other tests should be employed. However, the Orthotolidin test will indicate excessive residuals although it will not enable the tester to determine the exact amount. The Orthotolidin solution when placed in the water to be tested will produce a yellow color, the degree of color depending upon the amount of residual chlorine. The color can be compared with a standard chart indicating the amount of residual chlorine.

V. WHITE WATER SYSTEMS

● Refer to the last three paragraphs of Earl G. Thompson's statement under the heading, "Organic Toxic Agents," for his remarks on their use in maintaining sterility of white water systems.

At this point he added that in treating white water chlorine was first employed. A high residual chlorine carried over and aided in keeping the bacteria down. This worked well in bleached sulphite mills. Chloramines were later found to be more effective because the action was slower and lasted longer. Organic materials are now being used to an increasing extent. These are chlorophenols and pentachlorophenols. They act only on the bacteria and do not harm the pulp.

Mercury salts have found favor in groundwood mills but have not been found satisfactory in chemical pulp mills as yet.

Copper sulphate is corrosive and not satisfactory to use if a high white stock is required.

The resistance of certain bacteria, Mr. Thompson said, indicates that a combination of certain toxic agents is necessary in many plants to kill all the bacteria.

The chemicals are used more effectively on closed white water systems than in open or partially open systems, but in the fully closed systems the load on the toxic agents is heavier than in the open or partially open ones.

● A question was asked of Mr. Gibson concerning the nature of a yellow scale that one pulp mill had found developing on its filter sand. He replied that the scale would have to be analyzed to determine its source and also to determine the remedy. Either caustic soda or sulphur dioxide treatment would very likely remove the scale.

Mr. Gibson was also asked if filter sand deteriorated by rounding in say 5 or 10 years service. He replied that if the filter bed was kept in good condition the sand would be as effective after 10 years service as the day it was installed.

● Curtis M. Everts, Jr., of the Oregon State Board of Health, remarked that the pulp and paper industry along with all other industrial plants using water from their own private systems for drinking purposes, should maintain a constant watch on the bacteria in the water. One great danger, he said, was the accidental hooking up of drinking water systems with untreated river water used in fire fighting pipelines. Another industrial problem, Mr. Everts pointed out, was that of faulty plumbing. Bad plumbing hookups can cause the backing up of polluted water and overflow into fresh water lines. He urged the industry to watch all plumbing connections made to avoid this possibility of polluting the fresh water supply, particularly that used for drinking purposes.

● As an aid to those interested in water treatment, Mr. Hudrlik offered the following bibliography:

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(f)—free on request.

Dr. Carl E. Curran Died on December 23rd

● Dr. Carleton E. Curran, 50, chief of the Forest Products Laboratory's pulp and paper division at Madison, Wisconsin, died at a Rochester, Minn., hospital on December 23rd. Dr. Curran was well known throughout the pulp and paper industry. Funeral services were held at the First Congregational Church in Madison December 26th.

Dr. Curran, who graduated from Wabash College in 1912 and received his Ph. D. from Ohio State in 1921, came to the Forest Products Laboratory in 1921 following service as a second lieutenant in the Chemical Warfare Service, and employment as abstractor in organic chemistry for Chemical Abstracts, and director of information for the Mead Research Company. He retained an associate editorship with Chemical Abstracts to the time of his death.

Recognition of his abilities resulted in his advancement to chief of the pulp and paper division of the Forest Products Laboratory in 1930.

Dr. Curran was known to his associates in the Laboratory and to acquaintances in the pulp and paper industry as a thorough and brilliant scientist, an able executive, and an approachable coworker in the field of his specialization. Under his direction the work of the pulp and paper division on semichemical pulping of hardwoods, production of white papers and newsprint from southern pines, and improvements in the bleaching of pulp received wide recognition. He was the author of numerous publications on pulping and paper making processes which appeared widely in United States and Canadian journals and in reprints in foreign journals.

Aside from his interest in the field of cellulose and pulp and paper, Dr. Curran was known to chemists for his interest in nomenclature. Outside the field of chemistry he was a keen student of the economics of forestry and forest products.

He was an active member of the American Chemical Society, the Technical Association of the Pulp and Paper Industry, and the American Society for Testing Materials. He was affiliated with Kappa Sigma and with Sigma Xi and Phi Lambda Upsilon, honorary scientific societies.

Dr. Curran is survived by his widow and a 17-year-old son, Carleton Junior.

He attended the 1940 Fall Meeting of TAPPI in Seattle last August, taking an active part in the program as leader of the Alkaline Pulping Dinner Discussion.

Powell River Completes British Pulp Orders

● Powell River Company has completed its order from the United Kingdom for pulp, which necessitated the utilization of one of its machines for that purpose for nearly six months of 1940. The order was placed in an emergency, but the pulp is now being supplied by eastern mills because of their closer proximity to the market.

Camas Paper School Students To Get University Credits

College of Forestry, University of Washington to give graduates of the four-year course of the Camas Paper School full 16 hours of credit.

● It was recently announced that the University of Washington, College of Forestry, has officially recognized the Paper School of the Crown Willamette Paper Co., Division of Crown Zellerbach Corp., at Camas, Washington. As a result of extended negotiations, and with the approval of the Executive Committee of the Crown Zellerbach Corporation, arrangements are now completed by which graduates of the four-year course of the Camas Paper School will be given full university credit amounting to 16 credit hours. These credits may be used as electives to apply on the requirements of graduations from the College of Forestry at the University of Washington.

Professor BROR L. GRONDAL, College of Forestry, University of Washington.

In a letter to A. G. Natwick, dean of the Camas Paper School, professor Bror L. Grondal of the Forest Products Department of the University of Washington, stated, ". . . graduates of your school will be allowed sixteen credits, which may be used as electives in satisfying our requirements for graduation. It is obvious, of course, that a student presenting these credits must meet the entrance requirements of the University, be regularly enrolled in the College of Forestry, must meet all other requirements for graduation, and must obtain certification of these paper school credits from the departmental examiner, the executive officer and dean of the College of Forestry and the registrar of the University."

This announcement is the result of investigations of the Camas Paper School by the University of Washington. According to Professor Grondal's letter it was only "after careful consideration of the contents of the courses, method of instruction, professional standing of the faculty and the total time involved, a decision to grant full credit to graduates of your paper school who may enter the College of Forestry, was reached."

The Camas Paper School was complimented by Professor Grondal who wrote, "This recognition of your school should be of great interest to your students, for it emphasizes the trust and confidence we repose in you and your faculty. Your students have an unusual opportunity to study and learn—an opportunity that the average man on the job seldom gets."

A. G. NATWICK, Dean, Camas Paper School.

B. C. Newsprint Mills Hold to $50 Price

● British Columbia's two newsprint companies, Powell River Company and Pacific Mills, have formally given notice of their adherence to the $50-a-ton price policy for the six months' period ending June 30. This price is the "basic coast" rate, subject to change in export and distant markets. International Paper Company was the first Canadian company to announce continuation of the 1940 rate, and most of the major producers fell into line.

B. C. Shipping Situation Delaying Pulp, Paper Shipments

● Shortage of shipping is again the bane of British Columbia pulp and paper exporters, who find it increasingly difficult to get tonnage when they want it, with the added handicap of never knowing in advance when it will be available.

While United States bottoms have maintained a fairly steady supply of space for the Orient, shipping to Australia is likely to suffer the withdrawal of some of the liner space hitherto dependable. Slower freighters may take the bulk of the trade in the near future.

Trade commissioners of the Canadian government report good prospects of selling British Columbia newsprint in India at this time, but Vancouver exporters hesitate to develop that market because of the obviously temporary nature of the business. They have their hands full with domestic demand.

British Columbia mills have been passing up the South American markets for the same reason, although at one time Powell River Company had a healthy stake in the east coast South American business, making regular shipments to the Argentine. This was discontinued some years ago, however.

Pacific Mills, Ltd., reports doing a fair volume of business in kraft paper with South Africa as well as South America.

Wallace Crait Transferred To Shelton

● Wallace C. Crait, who has been associated with Rayonier Incorporated Port Angeles and Tacoma Divisions for ten years, was transferred late in December to the Shelton Division as personnel and safety supervisor. Mr. Crait served in similar capacities at Port Angeles and later at Tacoma from which plant he was assigned to Shelton.

He succeeds W. C. Phillips who came to Shelton a few months ago from Hoquiam to replace R. H. Williams when the latter was transferred to Portland. Mr. Phillips, a civil engineer, resigned to accept a position with the Lockheed Aircraft Company of Los Angeles.

Powell River Dam Ahead of Schedule

● Stuart Cameron & Company, contractors for Powell River Company's $1,000,000 dam project on the Lois River, will probably complete the job some time this year instead of in June, 1942, according to head office officials.

At the beginning of this year the construction was about four months ahead of schedule. Favorable weather conditions have made it possible to push progress without interruption.

When completed, the dam will be one of the highest in the province and the only "constant arch" type dam in Western Canada. The job has required the pouring of 200,000 tons of cement. It was necessary to go down some sixty feet to find bed rock for the massive foundations.

With minor adjustments and the addition of a turbine at the Lois River power plant it will be possible for the Powell River Company to proceed with installation of another paper machine which would step up production to more than 750 tons of newsprint daily. However, the company's policy so far as new paper machines is concerned is undetermined and will probably await a more settled condition in the markets.

The new dam will replace the temporary log crib dam which was erected at the time of the company's first expansion of power facilities at Lois River in 1929. For nearly ten years the original log crib has served the 22,000 horsepower generator at the big Stillwater power house.

Excavation for the foundation of the new dam has been carried approximately 50 feet on each side of the Lois River bed, and in the west side excavation concrete has been poured almost to river-bed level. Placing of concrete in the east side section was commenced towards the close of 1940 and is now well under way. The wing wall, thrust block and two adjacent sections on the west side of the dam are practically complete. About two thirds of the total excavation had been made by the end of last year and about one-twelfth of the total amount of concrete had been placed in position.

Site of the dam is the famous Copenhagen Canyon, so called by the huge number of discarded snuff boxes tossed into its rocky depths by Swedish loggers employed on the old Brooks Scanlon logging operations, where some of the tallest timber in the Pacific Northwest were falled more than twenty-five years ago.

Anacortes Mill Holds Christmas Party

● The Anacortes Pulp Company, owned by the Scott Paper Company, held a Christmas party for its employees in cooperation with the union local. The affair, held at the Empire Theater in Anacortes on December 24th, was attended by all employees and their families.

The program included two moving pictures, vaudeville acts, before the gifts, candy and oranges were distributed. L. Klang, E. Daniels and J. Harris were in charge of the entertainment. E. Daniels, R. Brooks, P. Ratzloff and C. Tate were on the gift committee. In charge of gift distribution were A. Daniels, C. Tate, P. Sorenson, R. Washburn, F. Russell, G. Strong, J. Davis, P. Ratzloff, E. Daniels and D. Daniels.

Chicago's Paper Milk Bottles Boosts Board Consumption

● The recent ending of the legal battle in Chicago over the use of paper milk bottles within the city limits in favor of the Fieldcrest Dairies, who took the Chicago Board of Health's ruling against paper bottles into the courts, will result in a boost in the consumption of paperboard.

PACIFIC PULP & PAPER INDUSTRY asked George D. Scott, sales manager, Pure-Pak Division, Ex-Cell-O Corporation, Detroit, whose paper milk container won the Chicago battle, how much tonnage of paperboard would be needed to make the containers used within the city? Mr. Scott estimates the tonnage as follows:

"According to recent press reports, Chicago has been using 400,000 to 500,000 paper units per day. Since this production has been attained in a very few weeks, let us assume that a year's production would average 700,000 units per day.

"This production, then, based on a 6-day week, would amount to 16,598,000 pounds of board, or 8,299 short tons, in a year's time. I certainly think this is an appreciable amount of business that will go to the paper industry, and I think, too, that every pulp, paper and board man should bear down strongly in the future, for the use of paper milk bottles instead of glass milk bottles."

It should be borne in mind that Mr. Scott's estimate is for the City of Chicago alone. The use of paper milk containers continues to grow steadily by reason of consumer preference despite opposition of politicians, dairies with heavy investments in bottles and bottle washing and filling equipment and of milk drivers unions.

Paper milk containers are more sanitary, more convenient and more economic than glass bottles, and their progress will continue.

Paper Production Set Record in 1940

● The paper industry in 1940 had the most productive period in its history, according to a statement prepared especially for The New York Times by E. W. Tinker, executive secretary of the American Paper and Pulp Association. Total paper and paper board production last year, estimated by the Association at over 14,200,000 tons, was in excess of 1939 production by over 5 per cent, and for the fourth time since 1929 exceeded all previous productive records.

"The paper industry, while profiting from the increased general business activity last year," Mr. Tinker continued, "was seriously affected by circumstances arising from the European conflict. Although the elimination of paper and pulp shipments from the Scandinavian and other European countries enabled the United States paper producers to expand their exports to a record level of approximately 600,000 tons, over twice that of 1939, many mills were faced with seriously increased cost schedules due to elimination of foreign pulp supplies and rising wage schedules.

"As 1941 begins, the backlog of orders in the industry is at moderate levels. Purchasing during the last few months has been decidedly on an actual requirement basis, and it is believed that merchants' and paper converters' inventories are not excessive. Among the favorable indications for continuing high productivity during 1941 are the probability of a continued high or increased export trade level, increased consumption of paper due to the still-accelerating general business activity and higher income payments and, finally, the direct and indirect effects of national defense spending."

This year will be a banner one for the fine quality paper industry as well as for the industry as a whole, it was predicted by A. C. Gilbert, president of the Gilbert Paper Company, a leading manufacturer of writing paper."

Hawley Hi-Jinks Provides a Lot of Fun

● The annual Foreman's Hi-Jinks of the Hawley Pulp and Paper Company was held at the Aero Club of Portland on December 18th with 183 persons attending.

Carl E. Braun, vice-president and mill manager, presided as toastmaster. Others seated at the head table were Tony Peterson, circulation manager of the Oregon Journal; J. L. Franzen, city manager of Oregon City; Cassius Peck, of Griffith, Peck, Phillips and Nelson, attorneys; Martin Lindle, assistant treasurer of the Hawley Pulp and Paper Company; Franklin T. Griffith, director of the Hawley Pulp and Paper Company and chairman of the board of the Portland General Electric Company; Gordon Law, assistant business manager of the Oregon Journal; J. H. Smith, president of the Hawley Pulp and Paper Company; P. J. Jackson, editor and publisher of the Oregon Journal; M. J. Frey, business manager of the Oregonian; Simeon Winch, business manager of the Oregon Journal; J. A. Wilson, assistant secretary and assistant mill manager of Hawley Pulp and Paper Company; Ed Brown, manager of Oregon Safety Council; Zina Wise, vice president of Griffith Rubber Mills; Virgel Scott, superintendent of pressroom at the Oregon Journal; A. D. Hosfeldt, sales manager of Hawley Pulp and Paper Company; and, Charles Legler, president of the Oregon City Chamber of Commerce.

At 7 p. m. the Hi-Jinks officially started. After refreshments were served the participants and guests sat down to a Aero Special Steak Dinner. In recognition of the pulp and paper industry the menu included "Sholdebrand Special" (8-year-old sulphite liquor) cocktails, "Shredded Groundwood" and "Well Beaten Broke" (Weleber Style) salads. The entree selection included "Sulphite Laps and 'Frey' Potatoes," "Deckered Slush and 'Braun' Potatoes," "Broiled Cheviot Meat" (Wrap).

The floor show and entertainment were presented with the conclusion of the dinner. Then Mr. Frey, of the Oregonian, was called to accept delivery of a roll of newsprint. The roll was delivered on a hand truck and presented to him. As he accepted the delivery, the side of the roll swung open and out stepped a beautiful chorus girl who continued the floor-show entertainment.

Carl Sholdebrand, sulphite superintendent of the Hawley mill presented a special Christmas package to George Spencer of the Hawley sawmill. The package contained a piece of hemlock pulpwood with the knots entirely removed. Jack Reddaway, of the steam department, was presented with an auxiliary boiler—a tea-kettle.

Several of the men at the head table were called on to give short speeches. J. H. Smith mentioned the fact that the company was doing very satisfactorily; that the outstanding bonds were to be paid off the first of the year. Franklin T. Griffith commented on the remarkable record of the Hawley Pulp and Paper Company under its present management, a record, he said, that has never been equalled in the paper business.

Both Carl Sholdebrand, of the sulphite mill, and George Spencer, superintendent of the sawmill, received honorable mention for their outstanding records during the year of 1940. Both of these gentlemen effected substantial improvements in the way of increased efficiency, increased production, and reduced costs.

The meeting was officially concluded by awarding door prizes. This drawing was conducted by Harold Lent and L. W. Smith.

Committees responsible for the success of the dinner included the following: Entertainment: Kenneth Urfer, chairman; V. L. Tipka, and

The SPEAKERS' TABLE at the HAWLEY FOREMEN'S ANNUAL HI-JINKS held in Portland, December 18th. Left to right, CHARLES LEGLER, President, Oregon City Chamber of Commerce; VIRGIL SCOTT, Superintendent of Pressroom, Oregon Journal; ZINA WISE, Vice President, Griffith Rubber Mills; ED BROWN, Manager, Oregon Safety Council; J. A. WILSON, Assistant Secretary and Assistant Mill Manager, Hawley Pulp & Paper Company; SIMEON WINCH, Business Manager, Oregon Journal; M. J. FREY, Business Manager, The Oregonian.

Lester Lloyd; Refreshments: Jack Reddaway, chairman; Ed Smith, Bill Sullivan, and Clyde Helsby; Tickets & Finance: Martin Lindle, chairman; and, Sam Hodes; Decorations: Harold Lent, chairman; Ed. Smith, James Alexander, and Jack Schmidt; Ushers Murray Brown, chairman; and Quincy Emery; Louis W. Smith was general chairman arranging the Annual Hi-Jinks.

The Hawley Pulp & Paper Company men attending the Hi-Jinks included the following:

J. H. Smith, president; **C. E. Braun,** vice president and mill manager; **A. D. Hosfeldt,** sales manager; **J. A. Wilson,** assistant manager and assistant secretary; **M. R. Lindle,** assistant treasurer and office manager; **E. E. Stoddard,** assistant office manager; **M. D. Carter.**

Office Administration

Bruno Weber, programing; **Quincy Emery,** office; **Murray Brown,** office; **James Alexander,** office; **Dan Lyons,** traffic; **William Sullivan; F. Kendall; Clifford Speaker; Fred Westmeyer,** office.

Research Department

V. L. Tipka, general mill; **A. F. Pennings,** newsprint specialist..

Engineering Department

Ernest Schweitz, resident engineer; **James Hollender,** master mechanic; **Joseph Kerzel,** engineer; **Dick Bittner; L. Bittner; Glenn Russell; G. Watts; A. Schudde; William H. Braun,** mechanical; **L. Derry,** painter.

Safety and Time Office

Charles Fox, safety engineer and personnel manager; **J. Grady; Charles Hood; T. Trygg; G. Jewell,** timekeepers.

Logging Department

Lester Lloyd, forester and buyer; **Henry Fischer,** buyer; **Al Smith, Edgar Smith.**

Sawmill Department

George Spencer, superintendent; **L. Herzog,** foreman; **J. Frank,** foreman; **J. Hafner,** foreman.

Groundwood Mills

Edward Dempster, superintendent; **J. Bloom; C. Elliott; H. Wheeler; G. Kalb; W. B. Rhodes; C. Caldwell; L. Gardner; Sid Hamilton,** foremen.

Shipping Department

Sam Hodes, foreman; **A. Nutt; Gene Good; W. Puckett; H. Ross; R. Schnieble; J. Knoop, M. Reibhoff.**

Sulphite Mill

Carl Sholdebrand, superintendent; **Roy Sidor,** foreman.

Sales Department

Paul Troeh, Jack Schmidt, R. Tuttle.

Steam Department

Jack Reddaway, chief engineer; **Tom Swift,** foreman.

Finishing Department

Clyde Helsby, foreman; **Walter Sanatel, C. Newhouse, John Meyer, W. Freeman, W. Weikum.**

Electrical Department

Ivan Hoskins, electrical engineer; **O. R. Prindle; Joe Zaniker; W. Bishop; E. Michels; H. Osborne,** electricians.

Paper Machines

C. E. Ackley, superintendent; **Austin Nickles; Jack Cater; Joseph Foley; E. Logsdon,** boss machine tenders.

Converting Departments

L. W. Smith, foreman; **Leo Howell,** assistant foreman; **A. Welk, F. Holden, W. Kennedy, B. Howell.**

Purchasing Department

K. G. Urfer, purchasing agent, **Harry Chandler, H. Chapin,** storeroom.

Laboratory

Fred Weleber, chief chemist; **L. Johnson,** chemist; **Bert Adams,** chemist; **John Kosciolek,** instruments.

Beater Rooms

Joseph Jenkins, beater engineer; **L. Weikum, J. Harrel, Otto Blisckke, Elton Smith, A. Graham, C. Baggerly, R. Meador, A. Ratke.**

Employee Representatives

Ralph Garner, Charles Fiddler, H. Bernard, T. Pierce, B. Maine, E. O. Burns, C. Stevens, D. Long.

Portland Warehouse

Victor Thomas, foreman.

Yard Department

Carl Meilike, foreman, R. Ballous, F. Patnaude.

Sample Department

Harold Lent.

Statistics and Cost Control

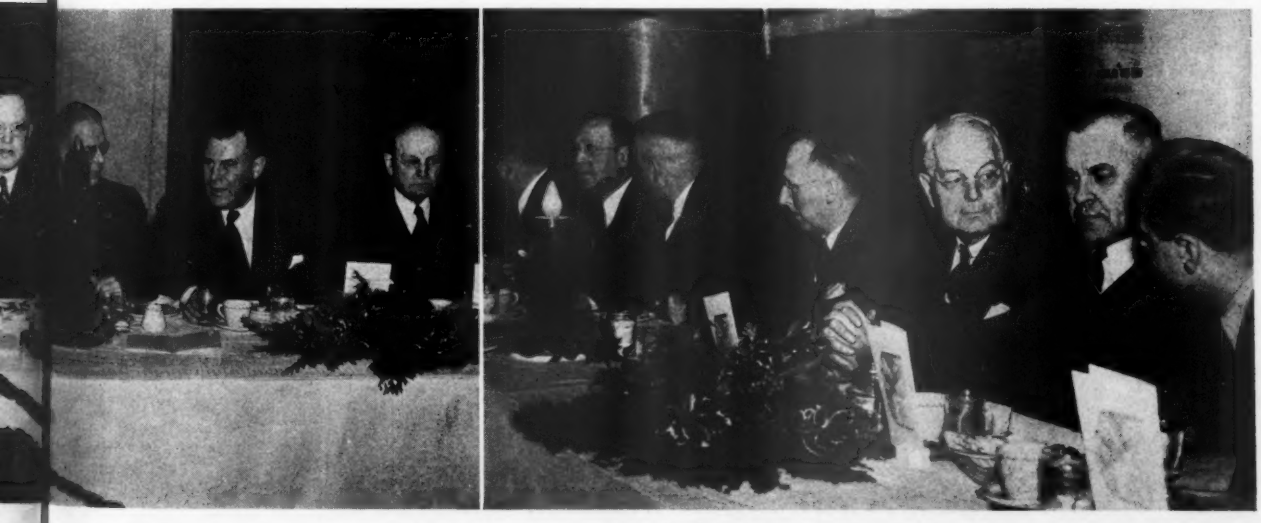
Harry Fromong.

Lars C. Bratt Visiting In United States

● Early in December Lars C. Bratt, Swedish engineer and former technical secretary of the Swedish Pulp and Paper Engineers, arrived in Seattle for a year's stay in the United States. Mr. Bratt resigned his position to make the trip to this country for the purpose of studying the pulp and paper industry. He will remain several months on the Pacific Coast.

Mr. Bratt came by way of the Trans-Siberian Railway, by sea from Vladivostok to Japan and thence by liner to Seattle. Six weeks' time was required for the journey from Stockholm.

He is a graduate of the Royal Technical University of Stockholm in chemical engineering.



CARL E. BRAUN, Toastmaster and Vice President and Mill Manager, Hawley Pulp & Paper Company; P. L. JACKSON, Editor and Publisher, Oregon Journal; J. H. SMITH, President, Hawley Pulp & Paper Company; FRANKLIN T. GRIFFITH, Director of Hawley Pulp & Paper Company; GORDON LAW, Assistant Business Manager, Oregon Journal; MARTIN LINDLE, Assistant Treasurer, Hawley Pulp & Paper Company; CASSIUS PECK, Griffith, Peck, Phillips and Nelson, attorneys; J. L. FRANZEN, City Manager, Oregon City; TONY PETERSON, Manager, Circulation Department, Oregon Journal.

Gaylord to Build Large Oakland Box Plant

● The Gaylord Container Corporation of St. Louis has purchased five acres of land at Ninty-fourth Avenue and San Leandro Boulevard, Oakland, and will start building a $600,000 plant immediately, according to company officials.

The new plant will be ready for occupation about April 1st, according to Charles E. Baum, Pacific Coast sales manager. At the new plant the company will manufacture corrugated and solid fiber shipping containers. Other products of the company are paraffined cartons, folding cartons, kraft grocery bags and sacks, wrapping paper and other kraft specialties.

Raw materials for the shipping containers will come from the corporation's own board plant at Bogalusa, Louisiana.

Employment for several hundred Oakland men and women will be provided by the new enterprise.

The Gaylord Container Corporation has been active on the coast since 1920 and has built a large business in fiber and corrugated boxes and reports have been current for the past several years that the management was seriously considering a western manufacturing location.

Mr. Baum has had more than 15 years of contacting western packers of canned, dried and preserved foods, and is one of the best known container men in the West.

George Beaman is Pacific Coast division manager. Announcement is expected shortly that the firm will offer several additional lines over those at present, since the western plant will eliminate the current handicap of delivery schedules.

Pacific Straw Reports Nine Months' Profit

● The Pacific Straw Paper & Board Company of Longview, which was beset with legal difficulties over stock ownership during the past year, reported recently through its president, Frank B. Mitchell, a net profit of $37,738 after charges and depreciation, in the first nine months of 1940. The company increased its sales and at several points made progress toward financial rehabilitation. The Oregon Voter reported Pacific Straw's financial situation as follows:

"Gross sales of the company in the nine months totaled $477,719. This was an increase of 35.7 per cent over $351,998 of sales reported for like period of 1939 and it was not much short of the $501,416 sales total of the entire year 1939. Profitable operations are in considerable degree dependent upon heavy sales volume, which serves to keep the plant busy. War conditions and defense activities have not yet served to increase this Longview company's sales, according to Mr. Mitchell, but later may have such an effect.

"As result of the profit earned to Sept. 30 the company wiped out a surplus deficit, replacing it with an actual surplus of $12,673. Profit before depreciation was $53,931 and after $16,193 depreciation allocation was $37,738 as already recorded. Surplus deficit existing at end of 1939 was $25,064, which left a 'black ink' surplus at end of the third quarter of 1940. Income statement for the nine months' period, slightly condensed, was as follows:

Gross sales	$477,719
Freight, allowances	53,120
Net sales	424,598
Cost of sales	306,948
Selling, admin. expense	49,971
Operating income	67,678
Income credits	1,137
Balance	68,815
Income charges	14,884
Profit before depr.	53,931
Depreciation	16,193
Net profit	37,738
Less surplus deficit	25,064
Surplus Sept. 30	12,673

"Between Jan. 1, 1939, and Sept. 30, 1940, the company reduced its RFC loan from $100,000 to $73,415, paying on the loan principal $27,780. It should be noted that $23,790 of this payment total was derived from life insurance proceeds. Readjustment of the schedule of payments to RFC has been effected, reducing them to a basis the officials think practicable.

"Semi-official statement provided The Voter places total improvement of the company's position in the 21 months ended Sept. 30 at a gain of $91,527. The statement contains these data:

	Jan. 1, 1939	Sept. 30, 1940
Current liabilities		
Pac. Straw Paper & Bd.	$100,073	$ 85,341
Sub. Pac. Paper Matls. Co.	8,918	9,886
Deferred liabilities	132,599	98,921
Total liabilities	241,590	190,148
Reduction in liabilities		47,442
Current assets:	101,995	134,117
Increased cur. assets		32,122
Improvement in cond.		79,564
Pending adjustments		11,963
Total improve. in cond.		91,527

"Among deferred liabilities on Sept. 30 were $14,588 of old claims which the company hoped to settle for 25c on the dollar. The 'pending adjustments' of the foregoing list are included on that basis but it needs be noted that the improvement total was in some small part tentative. Company's improved status as to relationship between current assets and current liabilities will be noted from the data just given.

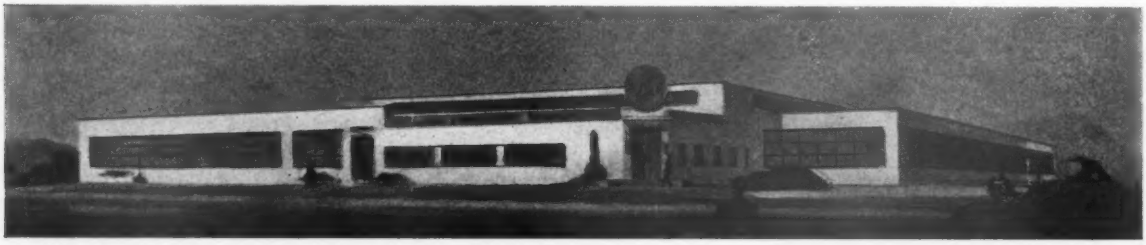
"In order that the company may serve its clientele better the installation of some new and larger machines is necessary, President Mitchell states. Outlay of around $30,000 on new machines is projected for the immediate future, other additions to come later. It is believed that savings and economies are in sight which will make the cost of the more modern machinery no real burden.

Rice Straw Mill Now Operating

● The rice straw pulp and paper mill of the Pacific Coast Pulp & Paper Company at Richvale, California, is now producing one-half ton of rice straw paper daily, according to D. M. Thompson, president. Actual production began around December 1st.

Six men are employed at the present time but this will be increased to nine, Mr. Thompson said, when capacity of two tons daily is attained.

The paper is reported to be employed at this time primarily for household paper towels.



Architect's drawing of the new GAYLORD CONTAINER CORPORATION fiber box plant to be constructed immediately in Oakland, California.

Ralph Shaffer To Manage Shipping Firm

● Ralph Shaffer, well known in the pulp industry through his presidency of the Shaffer Pulp Company of Tacoma for a number of years, and as vice president of the Puget Sound National Bank since 1935, has resigned his bank post to devote full time to management of the Shaffer Terminals, Incorporated. He will, however, remain as a director of the Puget Sound National Bank of Tacoma.

In his resignation Mr. Shaffer said: "On account of the greatly increased volume of new shipping and industrial business that is coming to Tacoma and Puget Sound, which volume I am convinced will increase tremendously during the next few years, I have requested my associates of the board of directors of the Puget Sound National Bank to accept my resignation as an active officer in order that I may resume active management of the Shaffer Terminals, Inc., and devote my full time to the requirements of this new business expansion. I have been president of the Shaffer Terminals for 20 years and feel at this time I must devote all my time to handling the shipping and dock business and to work on the development of new business and industries for Tacoma. . . ."

Reno Odlin, president of the Puget Sound National Bank, said, in part, upon Mr. Shaffer's leaving the bank, "The five years Mr. Shaffer spent with the Puget Sound National Bank have been years of exceptional growth and progress for the institution. For the big part he has played in that growth and expansion we are very grateful and appreciative. It is a source of real satisfaction to me and to all of us at the bank to know that he will remain as a member of our board of directors and continue to give us the benefit of his advice and counsel."

Canadian Railways Raising Freight Rates

● British Columbia pulp and paper companies, as well as other British Columbia industries, will be adversely affected by increases in transcontinental freight rates on Canadian railroads, effective February 1.

Iron and steel items are raised about 25 per cent. Such commodities as resin are increased, too.

Paper companies expect that higher rates on transportation of press rolls from east to west and back again for treatment may be prohibitive, resulting in placing of this business with American firms on the Pacific Coast.

Malcolm Knapp Heads B. C. Foresters

● Professor Malcolm Knapp, forest products specialist at University of British Columbia, who addressed Vancouver sessions of TAPPI a year ago, has been elected chairman of the Vancouver (B. C.) section of the Canadian Society of Forest Engineers.

M. F. Gormley, assistant district forester of the British Columbia Forest Service, will be vice chairman; R. M. Brown, secretary-treasurer and representative on the general executive committee; Charles MacFayden, R. V. Stuart and William Byers, councillors.

Westminster Paper Considering Expansion Plans

● Westminster Paper Mills may undertake considerable expansion during the coming year, President J. J. Herb intimated to Pacific Pulp & Paper Industry, but details have not yet been completed.

"If we go ahead with new construction it will be merely to enlarge our capacity to manufacture products we have turned out in the past," said Mr. Herb. "We do not propose to go into any new lines."

It may be possible to outline some of the expansion program by the time the annual meeting is held in March, Mr. Herb stated.

Tony Siebers Vacationing In Arizona

● Anton "Tony" Siebers, paper mill superintendent of the Longview Fibre Company, Longview, left December 27th for Phoenix, Arizona, for a vacation following a severe attack of influenza.

Mr. Siebers was badly bruised and shaken up in an auto accident while on a duck hunting trip the latter part of November. Before he had fully recovered the flu caught him and put him in the hospital at the time of the Superintendents' meeting in Longview, December 6th and 7th.

He is expected back in Longview early in February.

Vancouver Kraft In Fall Production

● Vancouver Kraft Corporation's plant at Port Mellon, Howe Sound, thirty miles north of Vancouver, B. C., is now in full production, employing three shifts on a five-day week basis. It is expected that this operating schedule will be increased to provide for at least six working days in the near future.

Nils Teren, vice president of the company, has been personally in charge of the mill and a permanent general superintendent will soon be appointed. Trig Iverson is in direct charge of the mill.

It is also expected that the sawmill will soon be running on a commercial basis. So far it is merely being used as a breakdown plant, providing cants for the pulp mill.

Sorg Paper Company of Middletown, Ohio, which has a two-year contract with Vancouver Kraft for its entire output, has an option to purchase the enterprise.

The company is shipping its kraft pulp to Vancouver for rail shipment to Ohio.

Richmond Talks On Steel Metallurgy

● Harry Richmond, chief engineer of Electric Steel Foundry Company, Portland, Oregon, served as guest instructor at the Crown Willamette paper school at Camas, Washington, January 8th. His presentation was "A Short Introduction to the Study of Steel Metallurgy" and was given to the third-year students.

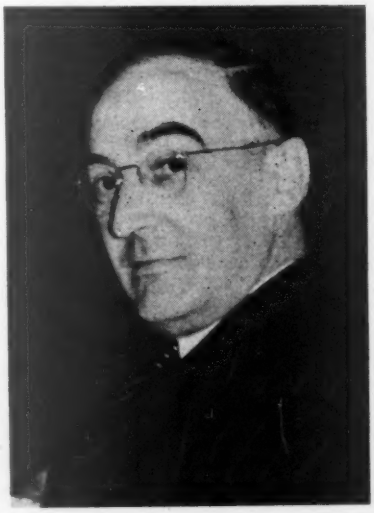
Lobb Joins Crown Zellerbach at Camas

● John J. Lobb, formerly general paper mill superintendent of the Scott Paper Company at Chester, Pa., became affiliated on December 1st with the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation at Camas, Washington, as assistant to the resident manager, J. E. Hanny. Mr. Lobb will be particularly concerned with the manufacture of toilet tissue and paper towels.

Mr. Lobb resigned as general paper mill superintendent of Scott Paper Company at Chester on November 16th after 27 years with that company. On the 22nd he and Mrs. Lobb left for the Pacific Coast. They came to the Northwest by way of the San Francisco, stopping at the executive offices of the Crown Zellerbach Corporation, and arrived at Camas on December 6th.

It was in 1913 that Mr. Lobb started working for the Scott Paper Company as a back tender. In 1914 he became machine tender when the company adopted the 8-hour day. Later he held other positions, including boss machine tender, tower boss and paper mill superintendent. After ten years in this capacity he was made general papermill superintendent in 1938.

Mr. and Mrs. Lobb have four daughters, all living in Chester. One daughter is married. The other three expect to join their parents at Camas in June.



JOHN J. LOBB, Assistant to the Resident Manager at Camas.

LOUIS BLOCH, Chairman of the Board of Crown Zellerbach Corporation, presenting a 40-Year Service Pin to HENRY E. VAN WEY of West Linn.

Service Pins Awarded at Camas and West Linn Dinners

266 Service Pins presented to men and women of Camas and West Linn . . . 90% of those employed at Camas have been with the company 5 years or more.

● Recognition was given to the personnel of Camas and West Linn mills of Crown Willamette Paper Company, Division of Crown Zellerbach, December 11th and 12th, when a total of 266 service pins were presented. Four pins were in recognition of individuals who have been with the company for 40 years.

A banquet for the recipients of the service pins and a large number of guests was held at the newly remodeled and redecorated Crown Willamette Inn at Camas on December 11.

The following night the West Linn presentation and banquet was held in the West Linn Inn.

William D. "Billy" Welsh, of the San Francisco executive offices, presided as toastmaster in his own inimitable way at both of the presentation banquets.

J. E. Hanny, resident manager, gave the welcoming remarks at the Camas dinner. He mentioned the high percentage of the personnel of Crown Williamette Paper Company, Division of Crown Zellerbach, which has already received service pins in recognition of their service. The group receiving these pins, which are given after a minimum of 5 years service with the company, includes 90% of the entire personnel.

Albert Bankus, vice-president of Crown Zellerbach Corporation, mentioned in his remarks that the human trait of reminiscing is good providing it is used as a guide for the future. Good when used to point the way.

He illustrated his point by a "dream" of being isolated from Camas ever since moving his residence from that city 20 years ago. Upon returning, Mr. Bankus saw a sign reading "Crown Willamette Paper Company, Division of Crown Zellerbach Corporation." Since he had left 20 years ago, the significance of the sign could not be realized. Then J. E. Hanny met the modern Rip Van Winkle and offered to show him through the plant.

They started at the "far end" where the logs enter the plant from the pond. Right from the start it was noticed that the changes were numerous. First, there was the barged hog fuel which has supplanted the use of fuel oil, a new chipping plant, a peculiar odor (which turned out to be the kraft mill). Upon entering the bag building large quantities of stored paper met the eye and confused the returned guest. Mr. Hanny explained that a new bag building had been built since Mr. Bankus left Camas and all of the manufacturing equipment was in the new building.

Other baffling changes included a new sulphite mill . . . No. 3 machine was gone, but tissue paper was being manufactured there at the rate of 1000 feet per minute as compared to the former 250 feet per minute. No. 9 machine is now operating at 1000 feet per minute . . . No. 6 is stretched out . . . No. 8 machine is not around any more . . . No. 12 is found to be a Yankee machine . . . No. 11 is manufacturing toilet tissue at 1000 fpm.

It was found that there are now a lot of new methods and changes, but even so Mr. Bankus found familiar faces. He was pleased to see the new central technical department, the clean grounds, good per-

sonnel relations and safety program.

He showed how the central technical department is not really a Camas institution but is working to supervise and coordinate methods between the different plants; to standardize the specifications; to keep in step and to keep in the lead.

The Bankus dream ended by his "awakening" and then wondering about the next 20 years, the years that are immediately ahead.

● An address was delivered by Alexander R. Heron, director of industrial and public relations for Crown Zellerbach Corporation, who has been named regional representative for the National Defense Advisory Commission.

He brought out the fact that investigations have disclosed thousands of ghost towns in this country—thousands of towns which have been unstabilized industrially. These towns are all suitable for some industry contributing to national defense and to the decentralization of industry. In looking around, paper mill towns can be found which have exhausted the neighboring resources; still other firms have gone from productive existence because the products which were manufactured were replaced by other products which were more suitable to the purpose. Still others have met the same fate because they have neglected to keep the customers' friendship, neglected customer-service and other details all leading to loss of the customers' good will. Then there are those who have lost out by becoming too complex, becoming too large without the corresponding adaptations.

A case was cited where two brothers were operating a business. This grew until it had 4000 employees. Finally the brothers concluded they had all the money they needed or had use for, so they would retire from business. Notice was given each employee advising him that the "business would close in 90 days . . . Good luck."

Corporations are not "made that way." They cotninue to operate. They feel the responsibility to the men who have invested their labor and years with the business. There is an irrevocable debt to the individual who starts working for a business concern at 20 or 25 years of age and continues with that company for 20 or more years. The firm is expected to continue in business; to operate in the future. Hence the responsibility of the corporation for keeping up to the front in leadership, in products, to keep the plant in operable condition, and lay away a percentage of the returns for replacing the exhausted equipment. A wisely planned and executed corporation realizes its obligations to the employees, to the business and to the future.

Bloch Made Camas Citizen

● Mayor H. J. Woodworth of Camas surprised those attending the service pin presentation by presenting Louis Bloch, chairman of the board of Crown Zellerbach Corporation, with a framed certificate of honorary citizenship of Camas, as a token of the esteem in which Mr. Bloch is held by the people of Camas.

Mayor Woodworth's Talk

● Before presenting Louis Bloch with a certificate of honorary citizenship of Camas, Mayor H. J. Woodworth spoke as follows:

"For many, many years the citizens of this community have recognized the major part which our paper mill has played in the development and growth of Camas and vicinity. We have come to realize, down through the years, that here we have an example of enlightened industrial management, which has made ours the outstanding industrial community on the Pacific Coast.

"It would be impossible to make mention of all of the innumerable contributions made by the company in the development and progress of our city.

Relations Harmonious

"The company has long followed a policy of placing such men at the helm of the Camas plant that relations between the company and the community have been very harmonious and it has long been the practice of the company management to support projects for the improvement and betterment of the community.

"For many years the company has made every effort to advance and improve the working conditions of its employes. Safety and cleanliness have received major emphasis; medical associations have been formed; group insurance has been made available; and the most modern equipment has been provided.

Workers' Problems Recognized

"Our paper company was among the leaders in recognizing the problems of the wage earner. During the depression, a policy of spreading the work was inaugurated; the mill was kept in operation, though the product for which there was no visible market, was often stored. The result was that during the last ten years, the local mill operated at a higher percentage of capacity and there was less poverty and suffering here than in any community I know of.

"Our local paper company was among the leaders in recognizing organized labor. Relations between management and the unions have been most cordial and pleasant. In fact, the local situation has been used as the "perfect example" in other paper mill communities.

Paper School Cited

"Eight years ago, a paper school was started to which all employes of the company were eligible for enrollment. The school has been continued, and just the other day was given full academic recognition by the University of Washington.

"Because of its efforts toward better relations with its employes, the local mill can boast of a low labor turnover. This banquet tonight is excellent proof of this

A. R. HERON, Industrial Relations Director of Crown Zellerbach Corporation, delivering the address of the evening at the Camas Service Pin Dinner.

At the top—ALBERT BANKUS, Vice President, Crown Zellerbach Corporation; CLARANCE C. COULSEN, who received his 40-Year Pin; GRANT SALISBURY and OTTO F. MICHAELIS, who received 30 Year Pins at the Camas Service Pin Dinner.

Below—The Camas 20-Year Men / / / Left to right,back row, GUSTAF A. LORENZ, JOHN O. DEVLIN, GRANT WALDORF, CLYDE E. JOHNSON / / / Front row, CARL H. BRUMMITT, FREDERICK PALMER, CLOICE W. TIMMONS, IRWIN O. RACE.

fact. Fully 75 per cent of the workers in the Camas mill, I am told, have been with the company at least five years.

"Naturally, any benefits that accrue to the employes of the company result in community betterment.

Direct Contributions Told

"There have been scores of instances where the paper company has made direct contributions to the welfare of the city and its people. The company gave us our city parks. Recently, Mr. Bloch, the Crown Willamette's "chief," volunteered the answer to one of our recreational problems when, representing his company, he presented to the city the ball park that we have been using for over a quarter of a century.

"For all these, and many things that I have not mentioned, the citizens of Camas have long been thankful. We therefore, want to take this opportunity tonight to express our appreciation in a tangible way.

"On behalf of our city government, the Commercial club and the citizens of this community, Mr. Bloch, I wish to present you with this certificate as a token of our esteem."

Mr. Bloch presented and welcomed to Camas and the Crown Zellerbach Corporation, Mr. and Mrs. John J. Lobb. Mr. Lobb arrived in Camas December 1st to become assistant to the resident manager.

Louis Bloch suggested, preliminary to presenting the pins, the misnomer of the terms "employee" and "employer." He explained that all were responsible to the same people—the stockholders of the corporation.

With congratulations to all the recipients Mr. Bloch awarded the pins, assisted by Vic Gault, personnel supervisor at Camas.

Camas Service Pin Awards

40 Years

Clarence C. Coulson.

30 Years

Otto F. Michaelis, Grant Salisbury, O. B. Koplin.

20 Years

Gustaf A. Lorenz, Carl Aslin, Gola Archie Fine, Rufus Fay Corey, William T. Harness, Harry O. Loveday, John Owen Devlin, Ernest C. Stewart, Grant Waldorf, Manley Fountain, Lulu Wendt, Clyde E. Johnson, Carl Herbert Brummitt.

A. E. Leeper, Frederick William Palmer, Edward Oscar Rice, Cloice Willard Timmons, August William Brunner, Irvin O. Rice, Frank Limacher.

15 Years

Joseph Samuel Barratt, Arthur Frederick Nyberg, Henry Leonard Lorenz, Roy Edward Phillips, Arthur J. Lethlean, William H. Burden, Basil J. Pillette, Ben Rekdahl, Emery Martin, Anton Sterr, Merlin E. Derby, Robert Allen, Thomas Edward Wills, Jack Richard Gould, Clarence Everett Timmons.

SERVICE PIN WINNERS at WEST LINN . . . No. 1, back row, left to right, JOE COURTNEY, J. V. DUSTIN, GEORGE HIRSCHLER, RAY HOWELL, EARL IRISH, G. L. JOHNSON, DON LARIOS, WALTER LEE.

Front row, left to right, TED LILLY, JAMES McLENNAN, HARRY METEN, MALCOLM J. OTIS, Assistant Manager of the West Linn Mill; C. PROFFITT, RALPH THOMAS, FRED YODER.

No. 2, The West Linn 30-Year Men . . . Left to right, CHARLES MEIRITZ, TOM PATTERSON, Sr., JAMES PATTERSON.

No. 3, JOHN BOLLE, who received his 35-Year Pine at West Linn. HUGH MATHESON, the other 35-year man, was ill.

No. 4, West Linn 25-Year Pin Winners, ANDY DESCHAMPS and HENRY O. CUSHMAN.

No. 5, Two of West Linn's three 40-Year Pin Winners, HENRY E. VAN WEY and CHARLES CRONER . . . ELMER HENDRICKSON was ill and unable to attend the dinner.

MAYOR H. J. WOODWORTH (right), presents LOUIS BLOCH, Chairman of the Board, Crown Zellerbach Corporation, with a framed certificate of honorary citizenship in the city of Camas, Washington, in recognition of his services to the people of the city.

Frank E. Cox, Glenn William Quail, Lawrence C. Forgey, Arthur M. Alexander, Lewis E. Burden, William Rodwell Jones, Rudolph Wolff, Irvin F. Hilton, Dallas Martin Platt, Levi Otis Wallace, Kenneth G. Weidman, Chester Albert Smith, Bud E. Hall, W. C. Ramsey, Carl A. Reitze.

20 Years

Lillian Echo Jensen, George John Baggas, David Hughes, Hilda Cannon, Edward Webberly, Walter Ira Ells, Lawrence Orton Rondeau, William Everett Bushlach, Willis Frye, Leith David Ross, Larry Hobson, Charles Morgan Addington, Betty Neilson, Tillie Williams, Ray L. Bruce, Clayton Noah Byrum.

Reuben F. Leach, Leonard Newton Smith, Reginald Russell, Elbert George Davidson, Elmer Harold Beauchamp, Claude Baker, Floyd Harold Daugherty, Ralph W. Ells, Thomas William Myers, Album Edward Richards, Gordon Wakeford, Andrew Melvin Robertson, Harry Larsen, Virgin Bush, Carl Albert Miller, Joseph Jean Aube.

5 Years

Leo Wilbur May, Hogo Peura, Charles Earl Conaway, Martin Joseph Seida, Joseph Douglas Russell, Walter Tasker Rains, Jack Robert Eby, Lawrence Ethier, Stella Lavern Wotzka, Harry Freemont Thornton, Marry Edna Kolberg, Dalton Lacey Shinn, Fred Milton Watson, Lawrence George Wright, Howard James Anderson.

Ronald Hale Dorman, Vernon Iral Morgan, Johephine Helen Hayes, Charles James Esser, Vivian Charles Smith, Delos Ray Harden, Alice Virginia Sutherland, Rex Ordway Hinman, Earl Quick, Eddie Andrew Bartkowski, Opal Cleo Knoble, Carl Rogers, Kenneth Charles Bennett, Russell Marcus Blair.

Alice Taylor Franseth, Alvin Raymond Barge, Edward Charles Rowley, Sam John Ring, Vernon Glenn Chevron, Jack L. Neal, Harold Wesley Busby, Andrew Cook, Jacob Kristan, David Gordon McClure, Al Purrington, Vernon Clarence Karns, Vernon Charles Meyer, Charles Fred Meyer, Edwin Wilbur Harms, Adam William Schroyer, Leona Van Arnam, Verone Curry.

Malka Bestel, John Paul Pupelis, Morse Osgood Morgan, Elden Woodbury White, Bob Robert Harness, William Gose McBroom, Walter David Smead, William Patrick Godsil, Jr., Claude Bert Christiansen, Emily Lucille Ott, Clarence Heriford, Henry Charles Harris, Bernard James De Camp, Charles Henry Starks, Alva Benton Calhoun.

Ralph William Jones, John Jess Ray, Forest William Kelly, Melvin Pringle, Melvin Edmond Anderson, Alfreda Schimel, Marguerite E. Smith, Latitia Spangler, John Melvin Ostenson, Clinton A. Dobson, Pauline Barbara Decker, Howard William Travitz, Frances M. Tate, Henry Eugene McBroom, Charles Anthony Russum, Otis Roy Packer, Marion Albert Edwards, Glen O. Wright, Paul Werner Arndt.

Jay J. Ferguson, Mark Udell Chapman, Alfred Calhoun, Sigurd Andreas Bjelde, James Austin Jackson, Marie Sams, Ardith Cleone Leiser, Mildred Opal Wishon, James Walter Robinson, Ralph Waldo Anderson, John Riley Buckner, Ben Lee Britton, Carl Newton Britton, Marjorie L. Carpenter, Patsy Charlotte Bardley, Lester Norman Duhrkop, Eileen Bertha Duback, Benita Marie Jackson Kropp.

Guests at Camas Dinner

Louis Bloch, chairman of the board, Crown Zellerbach Corporation; **Albert Bankus,** vice president, Crown Zellerbach Corporation; **F. N. Youngman,** vice president, Crown Zellerbach Corporation; **A. R. Heron,** industrial relations director, Crown Zellerbach Corporation; **W. D. Welsh,** industrial relations department, Crown Zellerbach Corporation; **J. E. Hanny,** resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation.

G. W. Charters, assistant resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation; **J. R. Frum,** assistant vice president, Crown Zellerbach Corporation, Portland; **E. P. Stamm,** manager logging operations, Crown Zellerbach Corporation, Portland.

C. F. Gaiser, purchasing department, Crown Zellerbach Corporation, Portland; **O. R. Hartwig,** industrial relations department, Crown Zellerbach Corporation, Portland; **Miles Murray,** industrial relations department, Crown Zellerbach Corporation, Portland; **R. A. Dupuis,** resident manager, Washington Pulp & Paper Corporation, Port Angeles, Washington; **E. W. Erickson,** resident manager, National Paper Products Corporation, Port Townsend, Washington.

P. F. Middlebrook, resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Lebanon, Oregon; **L. R. Gault,** Western Transportation Company, Portland; **Mayor H. J. Woodworth,** Camas; **Clyde Johnson,** president, International Brotherhood of Paper Makers, Local No. 130, Camas; **B. J. Pillette,** president, International Brotherhood of Pulp, Sulphite & Paper Mill Workers, Local No. 100, Camas.

A. Hannaford, representative International Brotherhood of Paper Makers-Pacific Coast; **Louis Blackerby,** Pacific Pulp & Paper Industry, Portland; **John Lund,** editor-publisher, Post Record, Camas; **Milt Bona,** associate editor, Post Record, Camas; **A. Trenner,** Columbia Valley Advocate, Washougal.

W. R. Barber, technical director, Crown Zellerbach Corporation; **John J. Lobb,** assistant to resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas; **Gus Ostenson,** paper mill superintendent, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation; **V. C. Gault,** personnel supervisor, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation; **Franklin T. Griffith,** Portland.

The West Linn Dinner

● At the West Linn service pin presentation and banquet, December 12th, C. E. Bruner, resident manager of the West Linn plant, expressed his appreciation to the men and the organization. He congratulated those men receiving the service pins for their satisfactory affiliation with the company during the past several years.

Franklin T. Griffith, who has been affiliated with the organization directly or indirectly for upward of 50 years, and who has kept a close contact with it, told of the development of the industry during this half-century. When he first entered the paper industry he spent his time gathering rags in some of the California cities from which the paper was then made. He has followed the paper industry of the Pacific Coast from the first plant to manufacture paper from wood to the large plants of today.

In his remarks of the evening, vice president Albert Bankus extended his congratulations to those

men who were being honored with recognition of their services.

Alexander R. Heron, director of industrial and public relations for Crown Zellerbach Corporation, spoke. He emphasized that the years invested by men with a business organization are their best years; years that should be well-placed—invested with an organization that will continue to live, for those years cannot be regained or replaced.

Otto Erickson, who retired December 1st from the employee of the Crown Williamette Paper Company, after 51 years of active service, was introduced as a guest of the evening. He received general congratulations and a big hand from all of the men present.

Louis Bloch, chairman of the board, assisted by J. A. Ream, personnel manager at the West Linn plant, presented the 81 service pins. He personally congratulated each of the men receiving the pins.

● A meeting of the 35-Year Club was held in the mill offices just prior to the service pin dinner. At this meeting Clarence E. Bruner was elected president of the club for the coming year.

West Linn Service Pin Awards

40 Years

Charles Croner, Elmer Hendrickson, Henry E. Van Wey.

35 Years

John Bolle, Hugh Matheson.

30 Years

Charles Meiritz, James Patterson, Tom Patterson, Sr.

25 Years

Andy Deschamps, Henry O. Cushman.

20 Years

Carson Armine, Mark A. Beardsley, L. Charriere, Joe Courtney, J. V. Dustin, Max Gatewood, A. J. Hartle, George Hirschler, Ray Howell, Earl Irish, C. L. Johnson, Don Larios.

Walter Lee, Ted Lilly, James McLennan, Harry Meten, William Murphy, M. J. Otis, G. Proffitt, Ralph Thomas, Fred Yoder.

15 Years

Harold B. Campbell, Earl S. Fero, Ed. F. Graver, Albert Hockhalter, Walter Hodgkinson, Emmett F. Jackhon, Clarence O. James, David O. Jones, Fred Joy, Cecil F. Mollert, E. H. Mollert, Raymond L. Overton, Clifford Robbins, Howard Turner, Frank Zeilinski.

10 Years

Joseph Brazney, Robert Croner, Sam John Danill, Edward O'Neill, Henry Rover, Adam Sharko, John F. Thompson, Frank K. Swift.

5 Years

Robert V. Austin, Albert Baisch, Arthur Baisch, Bill Baisch, Joe Boehly, Arthur Berg, Walter M. Berg, Edgar A. Clark, Lloyd T. Comegys, Erich F. Conzelmann, Robert A. Cornwell, Otho Cranor, Fred W. Drager, James E. Harrington.

Clarence A. Hitchman, Paul Holswarth, Ed Hursh, Ernest A. Kamrath, Perry B. Larsen, Arnold R. Lombard, Kenneth Lundgren, Odie K. Lytsell, Avery R. McNulty, Donald W. Moritz, Albert Parra, Harvey C. Stryker, George R. Young.

● Following the service pin dinner in Camas, Louis Bloch, chairman of the board of Crown Zellerbach Corporation, expressed his appreciation of the honorary citizenship of Camas conferred upon him in the following letter to Mayor H. J. Woodworth of Camas.

"Last Wednesday marked a great and happy surprise in my life. I am somewhat afraid that, due to the excitement of the moment, my response to your most complimentary remarks regarding our company and myself did not adequately convey the thrill and appreciation which I felt and still feel for the delightful tribute which you paid to us and the very beautifully executed certificate of honorary citizenship which makes me a member of your community. This certificate is now hanging in my office among a group of pictures of my grandchildren all of whom I hope will cherish it as much as I do.

"Will you please express to your associates of the City of Camas government, the Commercial club and the citizens of the community my very deep appreciation and heartfelt thanks for this evidence of the good will which they are manifesting toward our company and which is wholeheartedly reciprocated by the entire personnel of this organization.

"Since my return here I have read a transcript of the speech which you delivered . . . and I am having it circulated throughout our organization. It is an intelligent and understanding resume of the purpose and policies of the management . . ."

Guests at West Linn Dinner

● **Louis Bloch,** chairman of the board, Crown Zellerbach Corporation; **A. Bankus,** vice president, Crown Zellerbach Corporation; **F. N. Youngman,** vice president, Crown Zellerbach Corporation, Portland; **Joe Frum,** assistant vice president, Crown Zellerbach Corporation, Portland; **A. R. Heron,** director of industrial relations, Crown Zellerbach Corporation; **W. D. Welsh,** industrial rleations department, Crown Zellerbach Corporation; **J. E. Hanny** resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas.

P. F. Middlebrook, resident manager, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Lebanon; **O. R. Hartwig,** industrial relations department, Crown Zellerbach Corporation, Portland; **Bob Williams,** Crown Zellerbach Corporation, Portland.

F. T. Griffith, Portland; **Ed Stamm,** manager logging operations, Crown Zellerbach Corporation, Portland; **J. L. Franzen,** city manager, Oregon City; **Charles Legler,** president, Chamber of Commerce, Oregon City; **George Brodie,** Oregon City Enterprise; **Louis H. Blackerby, Pacific Pulp & Paper Industry, Portland.**

"Honorary Citizenship Expresses City's Esteem"

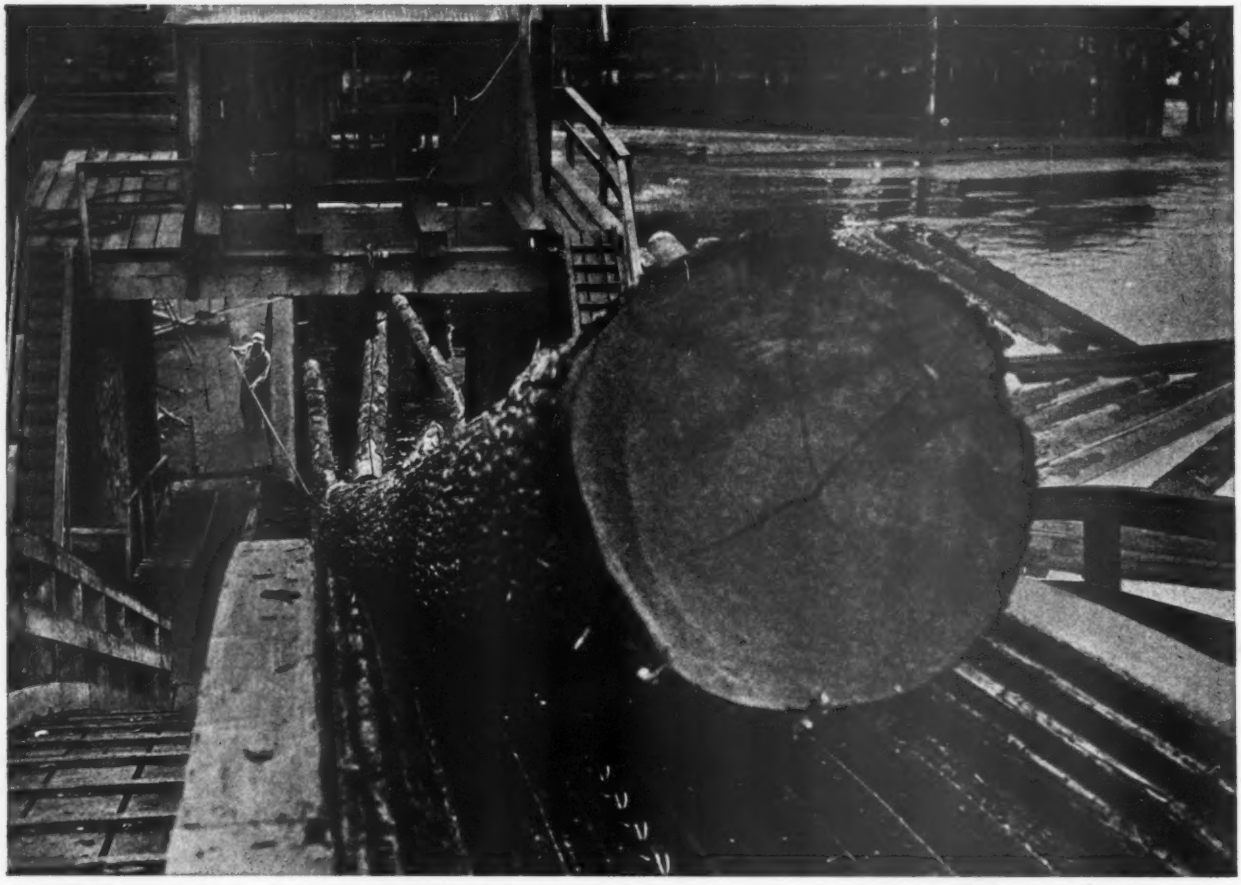
"By conferring an honorary citizenship on Louis Bloch the City of Camas has tried to express its esteem and appreciation for a man who has done much to promote the growth, prosperity and welfare of this community.

"As head of the Crown Columbia Paper Company, organized in 1907, and later as chairman of the board of the Crown Zellerbach Corporation, Mr. Bloch has played an important role in the development of the Camas paper mill, and at the same time in the development of Camas. During this period the paper mill has progressed from a small plant to the largest of its kind in the world, and Camas has grown from a village to a modern small city that ranks as one of the best in the Northwest.

"Mr. Bloch has understood the problems of the mill workers from his own experience. He started in the paper business 46 years ago in the Crown Paper Company in San Francisco tying bags for a wage of seven and one-half cents per hour.

"It was through the co-operation of Mr. Bloch that the city received as gifts from the paper company the beautiful large tract on the hill which is now our city park and the ball park property which is to be developed into a recreational center.

"It is in appreciation of his many services to the city that a certificate of honorary citizenship was presented to Mr. Bloch last night. The people of this community are proud to have Mr. Bloch as a fellow citizen."—Camas Post-Record.



First Step To Uniform Quality

UNIFORM QUALITY CONTROL OF RAYONIER PULPS begins with the careful selection of logs from one *species of tree.* Western Hemlock (illustrated) is used exclusively in Rayonier's four West Coast Mills and Southern Pine at Fernandina, Fla.

Shipment after shipment, you can rely on Rayonier Pulps for uniform physical and chemical characteristics.

Better Pulps For Better Performance

OFFICES

Executive

343 Sansome Street
San Francisco

Sales

122 East 42nd Street
New York City

RAYONIER
INCORPORATED

For a continuous domestic source of supply

MILLS: HOQUIAM, PORT ANGELES, SHELTON, TACOMA, WASH.
FERNANDINA, FLA.

Westinghouse Consolidates Seattle Offices

● Consolidation of all Seattle area activities of the engineering, sales and treasury departments of the Westinghouse Electric & Manufacturing Co. and the Westinghouse Lamp Division in the Westinghouse Building at 3451 E. Marginal Way, was announced today by K. L. Howe, Seattle sales manager for the company.

The move, made December 21st, takes those departments and their personnel from offices occupied during the past few years in the Lloyd Bldg., to the larger quarters occupied heretofore only by the accounting and service departments, the service shop, warehouse, and the Westinghouse X-Ray Company.

Seattle headquarters and warehouse facilities of the Westinghouse Electric Supply Co. and the Merchandising division of the manufacturing company continue in Westinghouse Electric & Supply Company's new building at 1051 First Ave., South, which they have occupied this past year.

"The Westinghouse Electric & Manufacturing Co. consolidation will make for greater efficiency in its operations in this area, hence for better service to our customers," Mr. Howe said. "We expect that business with local institutions, as well as work on orders relating to the national defense program, will be greatly facilitated."

Several thousand additional square feet of office space has been provided in the Marginal Way Building. The entire office area there has been modernized, redecorated and re-lighted.

Puget Sound Employees Hold Christmas Banquet

● Over five hundred members of the Puget Sound Pulp & Timber Company family enjoyed a Christmas banquet at the Hotel Leopold in Bellingham the evening of December 26th. An unusual feature of the dinner was the serving of steaks instead of the usual turkey common to Christmas banquets.

Lawson Turcotte, secretary-treasurer of the company, acted as toastmaster. Among those speaking briefly were Walter De Long, manager of the Bellingham mill; Dr. William C. Keyes, a director; and Ralph H. Miller of Seattle, another director.

Following a musical program the moving picture "Magic Fibers" was shown. The floor was cleared and the guests danced until a late hour. Glenn MacDonald represented Local 194 of the International Brotherhood of Pulp, Sulphite & Paper Mill Workers at the speakers' table.

Richard Wollenberg Married December 22nd

● Richard P. Wollenberg, safety engineer for the Longview Fibre Company, Longview, Washington, was married December 22nd to Miss Leone Bonney, daughter of Mr. and Mrs. Arthur Bonney of Wapato, Washington.

Mrs. Wollenberg was graduated from the Central Washington College of Education at Ellensburg. Mr. Wollenberg, who is the son of H. L. Wollenberg, president of the Longview Fibre Company, graduated in engineering from the University of California and obtained his master's degree in business administration from Harvard.

Penn. Salt to Build Plant at Portland

Prompt erection of a chemical plant on a newly purchased 50-acre site at Portland, Ore., was announced December 14th on behalf of the Pennsylvania Salt Manufacturing Company of Washington by Fred C. Shaneman, vice president.

Coincidental with Mr. Shaneman's statement, announcement was made by Dr. Paul J. Raver, Bonneville-Grand Coulee power administrator, of a 20-year contract with the company for delivery of 2,000 kw. of Bonneville-Grand Coulee power.

Completion of the plant is scheduled before Jan. 1, 1942, when 1,000 kw. of electirc energy will be delivered, with requirements increasing at the rate of 200 kw. per month until the full contract amount is delivered.

The plant site is on the west side of the Willamette River opposite St. Johns, Portland industrial suburb, and is adjacent to the plant of the Portland Gas and Coke Co., from which it will be able to derive raw materials for the manufacture of organic chemicals.

The first unit of the new plant will be devoted to the manufacture of sodium and potassium chlorates, but it is expected that later the plant will be increased to produce various chemicals by electrolytic and other processes.

Large quantities of chlorates are already being used on the Pacific Coast. Sodium chlorate is employed largely as a weed killer along railways and in agricultural areas, while potassium chlorate has its principal use in the manufacture of matches, signal flares, etc.

In addition, chlorates enter into numerous other technical processes, including certain analyses, dye manufacture, insecticides, leather tanning compositions, disinfectants, etc. Sodium chlorate is a reagent employed in recovering bromine from natural brines, an essential preliminary step in the manufacture of tetraethyl lead for premium gasolines.

Under its contract with the Bonneville-Grand Coulee Power Administration, the Pennsylvania Salt Manufacturing Company of Washington plant will receive Bonneville-Grand Coulee power at the rate of $17.50 per kw. per year. Incidental power for use in lighting the plant will be purchased from the Northwestern Electric Co., which will also transmit the federal power under a separate agreement signed with the power company.

It is not expected that the new plant at Portland will curtail operations of the Pennsylvania Salt Manufacturing plant at Tacoma, where chlorine, caustic soda and other chemicals are now produced.

Sodium chloride for use in the Portland plant will be brought from California, probably in larger degree by steamer as the plant is located on deep water, as well as important rail and highways.

FRED C. SHANEMAN, Vice President, Pennsylvania Salt Manufacturing Co. of Washington.

Coos Bay Mill Has Christmas Party

● On Monday evening, December 23rd, the employees of the Coos Bay Pulp Corporation held their first Christmas party. William S. Campbell, president of the corporation and vice president of the Scott Paper Company made a special trip from Chester, Pennsylvania to be present, missing Christmas at home for the first time in 25 years.

Santa Claus passed out turkeys for all the employees, the size of the turkey varying with the number in the family, and he presented each child with a present previously selected by a committee with the age of the child receiving it in mind.

Mr. Campbell explained that at Chester the people employed by the Scott Paper Company have been having Christmas parties for more than 20 years and he assured the employees at Coos Bay that the affair will become an annual one. Telegrams of felicitation were received from other plants operated by the company.

A special program of entertainment preceded the presentation of the gifts.

Rice, Barton & Fales Now Rice-Barton

● "For many years our company, organized in 1837, and its products, have been generally known in the industry as "Rice-Barton," writes Lester M. Start, vice president.

"In view of this, it has seemed fitting that the name be changed to comply with its general designation, and we have, therefore, voted to change it to RICE BARTON CORPORATION."

The Rice Barton Corporation, located in Worcester, Massachusetts, builds paper mill machinery. A number of paper machines and pulp dryers now operating in modern Pacific Coast mills were designed and built by the Rice Barton organization.

Rice Barton Corporation is represented on the Pacific Coast by Ray Smythe, Park Building, Portland, Oregon.

Camas Time Office in New Location

● Although the extension of the office building at Camas of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, is not completed, the personnel of the time office have occupied the extension. A new heating system has been installed in the office building and a new lighting system is expected to be completed in the near future.

Pulp Imports Down 35.5% in Eleven Months

Imports from Canada up 33.9%.
Overseas imports down 67.9%.

● The imports of wood pulp into the United States in November amounted to 70,549 short tons of all grades. Of this total Canada supplied 64,187 short tons and Finland 6,362 short tons. No pulp came from any other country during the month.

November imports were 2,437 short tons larger than the 68,112 short tons imported in October, an increase of 3.5 per cent. Imports of 64,187 short tons of pulp from Canada in November were 3,337 short tons less than the 67,524 short tons imported from that country in October. Imports from Finland in October, 1940, amounted to but 6 tons, while 582 tons came from Sweden in that month but none in November.

Eleven Months Imports

● For the first eleven months of 1940 imports of wood pulp into the United States amounted to 1,153,944 short tons. This was 636,284 short tons or 35.5 per cent less than the 1,790,228 short tons of all grades imported in the same 1939 period.

Canada was the only country shipping more pulp to this country in the first eleven months of 1940 than in the comparable 1939 period. Imports from Canada through November, 1940, totaled 762,529 short tons, 193,356 short tons or 33.9 per cent more than the 569,173 short tons arriving from Canada in the 1939 period.

Imports from overseas in the first eleven months of 1940 amounted to 391,415 short tons, 829,640 short tons or 67.9 per cent less than the 1,221,055 short tons imported in the same 1939 period.

From Finland the United States received 87,134 short tons in eleven months of 1940. This was 202,699 short tons or 69.9 per cent less than the 289,833 short tons received in 1939.

Norway supplied 17,190 short tons or 68,395 short tons less than the 85,585 short tons received from that country in 1939. This was a drop of 79.9 per cent.

Sweden shipped 280,352 short tons to this country in the first eleven months of 1940. This was a decline of 493,439 short tons or 63.7 per cent from the 1939 eleven months total of 773,791 short tons.

November Wood Pulp Exports

● Exports of wood pulp from the United States in November of 1940 totaled 28,981 short tons. The November exports were 11,074 or 27.7 per cent less than the October, 1940, exports of 39,965 short tons but 7,996 short tons or 38 per cent more than the 20,985 short tons exported in November of 1939.

November exports of rayon and special chemical grades of bleached sulphite pulp aggregated 7,826 short tons. Paper making bleached sulphite pulp aggregated 5,618 short tons, while unbleached sulphite exports were 4,061 short tons. Exports of bleached sulphate totaled 750 short tons and of unbleached sulphate 10,365 short tons. There were exports of other grades including 73 tons of soda pulp.

For comparison, the October, 1940, exports were: rayon and special chemical grades, 9,372 tons; paper making bleached sulphite, 4,422 tons; unbleached sulphite, 5,506 tons; bleached sulphate, 2,498 tons; unbleached sulphate, 17,344 tons; and, all other pulps, 823 tons including 217 tons of soda pulp.

Again in November Great Britain was the leading customer for United States pulp mills, taking 10,457 short tons of pulp. Great Britain's buying has been even the past three reported months: 10,891 short tons in September and 10,888 short tons in October.

Japan was again in second place taking 7,796 short tons in November as compared with 9,746 short tons in October. The South American countries collectively, Argentina, Brazil, Chile and Peru, took 4,434 short tons in November as against 2,966 short tons in October.

Mexico bought 2,278 short tons in November and 4,650 short tons in October. Australia and New Zealand bought 2,727 tons in November against 6,313 short tons in October.

Exports for eleven months of 1940 totaled 440,372 short tons of all grades with unbleached sulphate leading in tonnage and rayon and special chemical grades in second place. In the comparable period of 1939 the exports were 120,942 tons and the rayon grades headed the list. The exports of pulp from the United States in the first eleven months of 1940 were 319,430 short tons or 264 per cent.

COMPARISON OF WOOD PULP IMPORTS

October and November, 1940
(Tons of 2000 Pounds)

	Finland		Norway		Sweden		Canada		Total All Countries	
Type of Pulp:	Oct.	Nov.	Oct.	Nov.	Oct.	Nov.	Oct.	Nov.	Oct.	Nov.
Mechanical Unbleached	6	———	———	———	———	———	12,903	10,745	12,909	10,745
Unbleached Sulphite	———	3,521	———	———	———	———	18,391	15,503	18,941	19,024
Bleached Sulphite	———	1,578	———	———	———	———	25,112	25,821	25,112	27,399
Unbleached Sulphate	———	1,263	———	———	582	———	5,933	6,609	6,515	7,872
Bleached Sulphate	———	———	———	———	———	———	4,354	4,649	4,354	4,649
Soda	———	———	———	———	———	———	831	860	831	860
Total	6	6,362	———	———	582	———	67,524	64,187	68,112	70,549
Percentage of Change from Previous Month	—99.7%	———	———	———	———	———	+6.4%	—4.9%	+3.9%	+3.5%

Source: U. S. Department of Commerce, Bureau of Foreign & Domestic Commerce.

GREAT WESTERN DIVISION
BEAR BRAND PRODUCTS
THE DOW CHEMICAL COMPANY

Bear Brand

GREAT WESTERN DIVISION • THE DOW CHEMICAL COMPANY

SAN FRANCISCO, CALIFORNIA • PLANT: PITTSBURG, CALIFORNIA • NEW YORK, SEATTLE, LOS ANGELES

Cl_2

CHEMICALS

SO_2

INDISPENSABLE TO THE

NH_3

PAPER INDUSTRY

ZnS_2O_4

COMPARISON OF WOOD PULP IMPORTS

(Tons of 2000 Pounds)

From:	Eleven Months 1939	Eleven Month 1940
Finland	289,833	87,134
Norway	85,585	17,190
Sweden	773,791	280,352
Other Overseas	71,846	6,739
Total Overseas	1,221,055	391,415
Canada	569,173	762,529
Total Imports	1,790,228	1,153,944

Source: U. S. Department of Commerce, Bureau of Foreign & Domestic Commerce.

IMPORTS OF WOOD PULP INTO THE UNITED STATES

(Tons of 2000 Pounds)

	Oct. 1939	Oct. 1940	Nov. 1939	Nov. 1940	1940 Over 1939 Oct.	Nov.
Finland	28,281	6	27,190	6,362	—99%	—76.6%
Norway	15,108	.....	16,012	.....	.....	.....
Sweden	88,561	582	148,960	.....	—99.3%	.....
Canada	75,255	67,524	71,430	64,187	—10.2%	—10%
Total Four Countries	207,205	68,112	263,592	70,549	—67.1%	—73.2%

Source: U. S. Department of Commerce, Bureau of Foreign & Domestic Commerce.

COMPARISON OF WOOD PULP EXPORTS

(Tons of 2000 Pounds)

	Eleven Months 1939	Eleven Months 1940
Rayon and Special Chemical Grades	43,268	105,541
Other Bleached Sulphite	19,746	96,879
Unbleached Sulphite	32,546	64,831
Bleached Sulphate	†	18,407
Unbleached Sulphate	14,486	141,146
All Others	10,896	13,568
Total	**120,942	440,372

*Includes 8,527 tons of soda pulp.
**Includes 3,705 tons of soda pulp.
†Icluded under All Others.

Source: U. S. Department of Commerce, Bureau of Foreign & Domestic Commerce.

Russell Le Roux Given Farewell Dinner

● Russell J. LeRoux, who assumed his new duties as superintendent of the Everett Mill, Pulp Division Weyerhaeuser Timber Company, Everett, Washington, on January 2nd, was honored at a farewell dinner in Appleton, Wisconsin, his former home, the middle of December.

Glenn Carroll of the Combined Locks Paper Company advises that eighty-three men were present at the dinner in Appleton. Richard Radsch of the Appleton Machine Company was toastmaster, and he together with C. Irving McNair, vice president in charge of manufacturing, Northwest Paper Company, Cloquet, Minnesota; Dr. Otto Kress of the Institute of Paper Chemistry, Appleton; and F. W. Johnson, operating manager of the Rhinelander Paper Company, Rhinelander, Wisconsin, gave short talks paying tribute to Mr. LeRoux's fine qualities.

"The consensus of opinion among all the speakers," writes Mr. Carroll, "as well as those in attendance, was that the paper industry of the Middel West was suffering a great loss, and the Pacific Northwest was to be the beneficiary of this change. We know that Mr. LeRoux will live up to all expectations and that the industry will hear more of him."

Mr. LeRoux's father, O. L. LeRoux, mill manager of the Northwest Paper Company's mill at Brainerd, Minnesota, gave a short talk. The group was entertained by Don Purdy who gave a magical program and by a moving picture of the Green Bay Packers, professional football team.

The following men attended the farewell dinner for Russell J. LeRoux:

● **H. F. Robert Weber,** Link Belt Company, Chicago; **Glenn Carroll,** Combined Locks Paper Co., Combined Locks, Wis.; **O. L. LeRoux,** Northwest Paper Company, Brainerd, Minnesota; **R. M. Radsch,** Appleton Machine Company, Appleton, Wisconsin; **David Oberwieser,** Fox River Paper Corporation, Appleton, Wisconsin; **Bill McNair,** Weyerhaeuser Timber Company, Chicago; **W. A. Geiger,** Weyerhaeuser Timber Company, Chicago; **George Gilbert,** Gilbert Paper Company, Neenah, Wisconsin; **C. J. McMahon,** Appleton Woolen Mills, Appleton, Wisconsin; **G. D. Muggleton,** Combined Locks Paper Co., Combined Locks, Wis.

C. Irving McNair, Northwest Paper Company, Cloquet, Minnesota; **James B. Clarke,** National Aniline & Chemical, Chicago; **Robert M. Van Kerk,** Penick & Ford, Ltd., Evanston, Illinois; **John Logan,** Mathieson Alkali Co., Chicago; **S. H. Spaulding,** Kimberly-Clark Corp., Neenah, Wisconsin; **Dr. Otto Kress,** Institute of Paper Chemistry, Appleton; **Rudy Sensenbrenner,** Geo. A. Whiting Paper Co., Menasha, Wisconsin; **F. S. Murphy,** Locksport Felt Co., Appleton; **L. B. Penhallow,** Wadhams Oil Company, Appleton.

M. R. McCourt, Guy R. Stearns, Cy Wassenberg, Anton Liesch, Robert C. Zilske, John S. Bleier, Chas. Herk, Ray E. Coon, Elmer Sterns, Ole Nymoen, Albert Junge, Joseph Quell, Floyd Kessler, Philip Retson, Ray Younger, Harold Lousman, of the Interlake Pulp & Paper Co., Division of Consolidated Water Power & Paper Co., Appleton.

R. F. Dunger, Combined Locks Paper Company, Combined Locks, Wis.; **J. W. Hewitt,** Hewitt Machine Company, Neenah, Wisconsin; **Jos. P. Haberman,** Fox River Paper Corp., Appleton; **R. G. Smith,** Northern Paper Mills, Green Bay, Wisconsin; **E. C. Hilfert,** Riverside Paper Corporation, Appleton; **H. M. Sherman,** Northern Paper Mills, Green Bay, Wisconsin; **Richard G. Knechtges,** Northern Paper Mills, Green Bay, Wisconsin; **Gene Davis,** Riverside Paper Corporation, Appleton; **L. R. Watson,** Tuttle Press Company, Appleton; **John Laeyendecker,** Fox River Paper Corporation, Appleton.

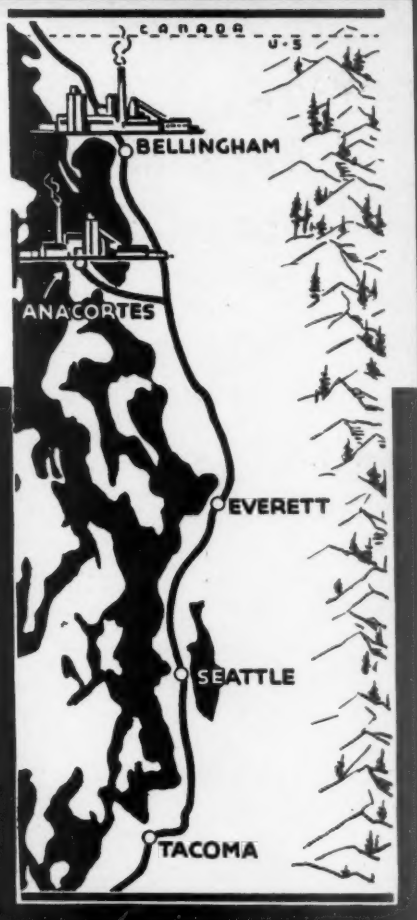
M. E. Mace, Marathon Paper Corporation, Menasha, Wisconsin; **John M. Grimes,** Standard Oil Company, Neenah, Wisconsin; **Clarence C. Laude,** Kimberly-Clark Corp., Neenah, Wisconsin; **M. G. Cook,** Kimberly-Clark Corp., Neenah, Wisconsin; **D. C. Porter,** Kimberly-Clark Corp., Neenah, Wisconsin; **T. J. Gordon,** Wadhams Oil Company, Appleton; **Al Massey,** Wadhams Oil Company, Appleton; **A. McPhillips,** Simonds Worden White, Beloit, Wisconsin; **H. P. Madsen,** Appleton Machine Company, Appleton.

F. M. Bentzer, Kimberly-Clark Corp., Neenah; **Herman Gottsleben,** International Wire, Menasha; **Bob Rogers,** Kimberly-Clark Corp., Neenah; **John Nylund,** General Dyestuff Corp., Chicago; **F. W. Johnson,** Rhinelander Paper Co., Rhinelander; **W. E. Waymire,** Westinghouse Electric & Mfg., Milwaukee; **Jimmie Stafford,** Rhinelander Paper Co., Rhinelander; **Lewis Dozier,** Rhinelander Paper Co., Rhinelander.

Peter Jones, Combined Locks Paper Co., Combined Locks; **Tom Gillespie,** Pennsylvania Salt Company, Chicago; **David Brittain,** Mead Sales Company, Chicago; **Albert Piepenberg,** Combined Locks Paper Co., Combined Locks; **Erwin G. Artz,** E. G. Artz Company, Milwaukee; **W. M. McGraw,** General Electric Company, Milwaukee; **Sidney D. Wells,** Institute of Paper Chemistry, Appleton; **Bill Buchanan,** Appleton Wire Works, Appleton; **A. H. Thuerer,** Appleton Woolen Mills, Appleton.

W. H. Swanson, Kimberly-Clark Corp., Neenah; **Wm. H. Monsson,** Hooker Electrochemical Co., Niagara Falls, N. Y.; **J. J. Plank,** J. J. Plank Company, Appleton; **John P. Gerhauser,** Appleton Wire Works, Appleton; **Howard G. Mayshaw,** Bird Machine Company, Chicago; **L. J. Smith,** Combined Locks Paper Co., Combined Locks; **Ralph McGowan,** New York Life Insurance Co., Appleton; **A. T. Gardner,** Combined Locks Paper Co., Combined Locks; **W. J. Plank,** J. J. Plank Company, Appleton; **L. A. Carpenter,** Bergstrom Paper Company, Neenah; **Reg. Waldo,** Kimberly-Clark Corporation, Neenah.

Quality
SULPHITE PULP



PUGET SOUND PULP & TIMBER COMPANY

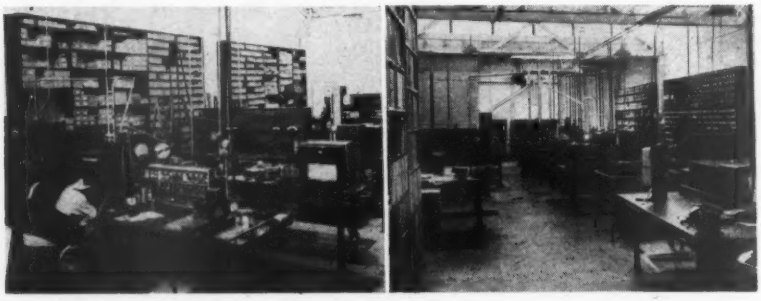
BELLINGHAM, WASHINGTON

DOMESTIC & EXPORT SHIPMENTS

Bristol Company in New Coast Headquarters Building

● Expanding business on the Pacific Coast has caused The Bristol Company, manufacturers of recording and controlling instruments, to move into fine new quarters at 40 Berry St., San Francisco, wherein are located the Pacific headquarters including sales offices, branch factory, and service laboratory.

This branch serves the entire Coast area west of the Rockies and includes factory equipment, and parts for service, calibration, and repair of all types of Bristol instruments. In addition, a stock of basic parts is carried for quick assembly to meet rush delivery requirements of Pacific Coast industries.



Views of THE BRISTOL COMPANY'S new San Francisco headquarters building ✓ ✓ ✓ On the left, pyrometer calibration and electrical testing benches ✓ ✓ ✓ On the right, a general view of the Pacific Coast factory where repairs are made and instruments assembled for quick delivery.

J. W. Peckham was promoted in midyear to Pacific Coast district manager, succeeding R. G. Tower, who was transferred to Chicago as district manager there. Mr. Peckham's experience includes a number of year's work with the General Electric company in the East, four years in the Seattle office of The Bristol Company, covering the Pacific Northwest and British Columbia, and previously to that Mr. Peckham worked out of several of the Eastern offices of The Bristol Company.

O. C. Abbott has been promoted to take charge of the Seattle office. His experience includes three years of sales engineering in the Pacific Northwest, and previously to that a number of years with the engineering division of the company, working on the design of air control instruments. He has traveled all over the United States in sales and service work for the company.

Wilbur P. Foote has recently been added to the sales engineering force at San Francisco, following an extensive factory training course at the Waterbury, Conn., plant of The Bristol Company.

W. H. Rogers continues in charge of the Los Angeles office of the company, and G. P. Fairbanks remains as foreman of the West Coast service laboratory.

For special coverage in the pulp and paper industry The Bristol Company has as special representatives in the Northwest, the Northwest Filter Co., W. R. Gibson, manager, and B. W. Sawyer, both of whom have had many years of experience in the pulp and paper industry.

One of the outstanding developments of The Bristol Company is its Pyromaster potentiometer which is used as a resistor thermometer for recording and controlling cooking and bleaching operations. It is also used as a pyrometer in connection with sulphur burners and for flue gas temperature recording. It is used as a controller for many applications in the pulp and paper mill, a PH recorder, and also as a tachometer for machine speeds.

Well known also are Bristol's recording flow meters for steam, water, etc., pressure recorders, top relief control, and a complete line of general instruments for the usual measurements.

J. W. PECKHAM, Pacific Coast District Manager, The Bristol Company, on the left, and W. P. FOOTE, sales engineer, in the company's new Pacific Coast headquarters building in San Francisco.

New Officers of Western Transportation Co.

● Effective December 1, 1940, the officers of the Western Transportation Company of Portland are L. R. Gault, president and traffic manager; R. W. Confer, vice-president and operating manager; R. L. West, secretary-treasurer.

Brotherhood Members Present Christmas Gifts

● Members of the International Brotherhood of Pulp, Sulphite & Paper Mill Workers, Local 214, at Lebanon, Oregon, mill of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, didn't forget their retired members at Christmas.

Voluntary contributions to buy gifts for retired members of the local amounted to over $95.

Don A. Phelps was elected president of Local 214 for 1941.

Port Angeles Christmas Fund Sets Record

● When William D. Welch retired as managing editor of the Port Angeles Evening News early in 1939 to join the Crown Zellerbach Corporation staff at San Francisco, Port Angeles people wondered what would happen to the annual Christmas charity campaign he had conducted for some 15 years under the name of "Beacon Bill." J. D. Zellerbach, his new employer, answered the question by announcing Welsh would be granted leave of absence every December to return and carry on the drive.

This winter Welsh went back to Port Angeles for the second year, found the columns of the newspaper open to him as before, and had the most successful campaign in history of the event. More than $5,200 cash was raised and large quantities of food, clothing, toys and other materials collected. Christmas baskets were distributed to scores of needy families, but the principal effect of the fund is to be felt throughout the year in Port Angeles and vicinity. The money goes to various organizations providing hot lunches, glasses and dental care for needy school children, general emergency aid to "down and out" families and a host of other worthy causes.

The management and employes of the three pulp and paper mills in Port Angeles for years have been heavy contributors to the fund. This year they "went over the top," Rayonier Incorporated and employees chipping in with $935.50, Washington Pulp and Paper division of Crown Zellerbach and employees adding $653.50 and the smaller Fibreboard Products plant and employees turning in $245.50. The Rayonier workers, as is their annual custom, sent Beacon Bill a huge hemlock plank "steak" bearing the names of more than 600 individual donors. The Washington Pulp papermakers adopted a somewhat similar idea this year, making up a big jumbo roll of newsprint containing their contribution.

In addition the Paper Makers' union, whose membership is drawn chiefly from the Washington Pulp ranks, fattened the pot with a $300 donation.

Fibreboard Men Get Service Pins

● Nineteen service pins, including three for 20-year veterans, were distributed to employees of the Fibreboard Products mill at Port Angeles at a banquet shortly before Christmas.

Those receiving the pins were:

Twenty years, J. H. Clay, Walter Taylor and Charles F. Meagher; 15 years, J. H. Avery, Ellis Getchell, N. L. McFarland, R. C. Hockey, C. B. Keller and P. C. Nash; 10 years, E. C. Preece, H. C. Bryant, J. A. Edwards, Norman Lloyd, Fred C. Miller, Wilbert Bailey and Russell Murray; five years, N. E. Lloyd, A. F. Jacobs, Elaine M. Johnston.

McGregors See East-West Game

● George H. McGregor, superintendent, Longview Mill, Pulp Division Weyerhaeuser Timber Company, Longview, accompanied by Mrs. McGregor, left Longview December 29th and drove to San Francisco to spend New Year's Eve and to see the annual East-West football game. After an enjoyable trip they returned home January 5th.

Fibreboard Making Improvements at Port Angeles

● Continuing a program of improvements started last summer, the Port Angeles Fibreboard Products plant at present is carrying on several minor construction and alteration projects. Chief among them is an addition to the garages and open-air parking space across the street from the plant. This should be "good news" to salesmen and others who frequently visit the Fibreboard mill, Resident Manager R. E. Bundy believes. Most of the "peddlers" at one time or another have had to park their cars beside the railroad track passing the front of the plant and have come out to find a logging train halted and an irate train crew shoving the auto out of the way. Hereafter, there will be plenty of parking area available.

Rayonier Sending Newspapers To Service Men

● About 30 employees of the three Port Angeles pulp and paper mills who are serving with the Port Angeles National Guard unit in training at Fort Worden are being kept in close touch with their home town through a gift of the mills and the town's daily newspaper. The Rayonier, Crown Zellerbach and Fibreboard Products Company units at Port Angeles and the newspaper management have joined forces to provide each of the 30-odd Guardsmen with free subscriptions to the paper during their year of service. The young men are members of Battery A, 248th Coast Artillery (Harbor Defense).

Use Eastwood Wires

REDUCE YOUR STOCK ROOM INVENTORY

EASTWOOD TOUGHENED WIRES EASTWOOD-NEALLEY CORP

EASTWOOD-NEALLEY CORPORATION

At Belleville, N. J. Since 1877

Pacific Coast Supply Moves Seattle Office

● The Pacific Coast Supply Company, with offices in Portland, Seattle and San Francisco, moved the Seattle office in December to larger quarters at 805 White Building. The telephone number, Main 3940, remains the same.

Andrew D. Hawley is in charge of the Seattle office. John M. Fulton is general manager of the company with headquarters in Portland.

The Pacific Coast Supply Company represents a number of leading producers of raw materials, supplies and equipment for the pulp and paper industry on the West Coast.

William E. Keyes Married In British Columbia

● An international wedding featured the Christmas holidays in Bellingham when Miss Audrey Elizabeth Upton-Noot, daughter of Mrs. Elizabeth Pollock of White Rock, British Columbia, and William E. Keyes, shift chemist for the Puget Sound Pulp & Timber Company, were married at the Holy Trinity Anglican Church in White Rock.

Mr. Keyes is the son of Dr. Marion Keyes of Blaine and the nephew of Dr. William Keyes of Bellingham, director of the Puget Sound Pulp & Timber Company. The newlyweds spent their honeymoon at Paradise Inn, Rainier National Park.

Jack Robertson Injured In Auto Accident

● Jack Robertson, safety supervisor of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, was injured in an automobile collision just before Christmas. He was an occupant of one of two automobiles involved in a collision on the highway between Camas and Vancouver. Only minor injuries were sustained from the accident.

Camas Office Employees Have Christmas Party

● A party was given for the office employees of Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, on December 21st, the Saturday before Christmas. Employees having office desks in the control laboratory, research laboratory and the main office, were guests. The party was held at the Crown Willamette Inn at Camas and about 100 guests attended the entertainment.

J. E. Hanny, resident manager at Camas, entertained the mill foremen at his home the same evening.

Chemistry Department Desires Back Copies of Technical Journals

● The Library Committee of the Department of Chemistry and Chemical Engineering, University of Washington, Seattle, will greatly appreciate receiving back files of scientific, technical or trade journals for the duplicate files maintained in Bagley Hall through such gifts.

Anyone who possesses back copies of use to the chemistry department is requested to communicate with Kenneth A. Kobe, associate professor, chemical engineering, Bagley Hall, University of Washington, Seattle.

Trade Talk

of Those Who Sell Paper in the Western States

Lloyd O'Connell Named Manager B M & T at Oakland

● Announcement of the appointment of J. Lloyd O'Connell as manager of the Oakland division has just been made by Blake, Moffitt & Towne. He succeeds Frank L. Unthank, who has held the position for some years, and who is now being transferred to San Francisco headquarters to assist in supervising the handling of the company's contract and mill shipment business.

Widely known throughout the trade in the Bay Region, Mr. O'Connell made his start in the paper business with Blake, Moffitt & Towne, San Francisco, some 25 years ago. He is no stranger to his new position, for when the company opened its Oakland branch in 1926, he was given a position of responsibility in developing the East Bay business. Following this he was transferred to the Seattle division of the company to promote the sale of printing papers, after which he returned to California and has been attached to the mill department of San Francisco headquarters, contacting large converter and boxboard accounts.

J. LLOYD O'CONNELL, Manager Blake, Moffitt & Towne at Oakland

With his long and valuable experience in the paper business, and his knowledge of the market possibilities in the fast developing East Bay area, his associates in Blake, Moffitt & Towne feel that Mr. O'Connell is well qualified to direct the company's operations in this territory.

It is understood no other personnel changes are contemplated by the company in Oakland, and the present staff will continue as heretofore.

The Oakland division of Blake, Moffitt & Towne is one of a coast-wide chain of 16 houses, the most recent of which was opened in Spokane just last year. The company was founded in San Francisco in 1855, so this year marks the 86th anniversary of this pioneer Pacific Coast paper organization.

Blake, Moffitt & Towne Men Hold Christmas Party

● The annual Christmas party for Blake, Moffitt & Towne San Francisco salesmen and department managers was held on December 28 at the St. Francis Hotel, and was a huge success.

J. K. Moffitt, president of the company, made a talk; O. W. Mielke, general manager, gave a most interesting and humorous talk on the paper business as it was in Portland in the '90's; and A. W. Towne, Northern California manager of the company, acted as toastmaster. J. W. Towne, first vice-president, was another of the executives of the company present at the affair.

The salesmen put on a skit, and all hands enjoyed a banquet.

Paterson Parchment Holds Coast Sales Meeting

● The Paterson Pacific Parchment Company, San Francisco, held its annual Coast sales meeting in San Francisco, January 2, 3, and 4.

Directing the meeting was W. J. Gray, general manager of the Paterson Pacific Company, and C. G. Bennett, assistant sales manager of the Coast company. Those attending besides Messrs. Gray and Bennett were: W. G. Batson, Portland salesman; F. D. Smith, Los Angeles salesman; E. C. Roeder, W. W. Dodge, and T. C. Nielssen, all of San Francisco. Mr. Nielssen is a new addition to the Paterson sales force.

Webb Plass Dies in Salt Lake

● Webb Plass, West Coast representative of the Lily-Tulip Corporation, who made his headquarters at the Zellerbach Paper Company, San Francisco, died suddenly in Salt Lake City, in the latter part of November. No successor to Mr. Plass has yet been chosen.

Zellerbach Annual Sales Meetings

● The Zellerbach Paper Company is now having its annual sales meetings in all divisions.

The meetings have been held in Los Angeles, and are now being held in the Northwest divisions of the company. In charge of the meetings are the headquarters merchandising staff, which consists of V. E. Hecht, vice president; D. C. McMillin, T. J. Finerty; Ed Shelton, and Chapin Hunt.

Seaboard to Handle Parker Blotters

● The Seaboard Paper Company, San Francisco, has taken on the complete line of fine blotting papers manufactured by Joseph Parker & Son Co., New Haven, Conn.

The Joseph Parker & Son Company is said to be the oldest firm of blotting paper manufacturers in the United States. It was founded in 1840.

Paterson Host to BM&T Salesmen

● On December 27th the Paterson Pacific Parchment Company played host to all the Blake, Moffitt & Towne salesmen of the Northern California Divisions.

The salesmen were taken through the interesting new plant of the Paterson Pacific Parchment Company in San Francisco, and were presented with a facsimile of the manuscript of the Star Spangled Banner, printed on Paterson parchment paper.

Zellerbach at Salt Lake To Handle Brown Ledger

● The Zellerbach Paper Company of Salt Lake City has been appointed distributor in that territory of Greylock Linen Ledger, the 85 per cent new rag record paper manufactured by the L. L. Brown Paper Company, Adams, Mass.

Bill Would Reduce Paper Tariff

In a special report to the industry, Warren B. Bullock, manager of the Import Committee of the American Paper Industry, states:

"A bill introduced by Congressman Cullen of New York proposes to exclude from the dutiable value of foreign merchandise any sales, excise or war taxes which may be imposed. Under long standing law and precedent the determination of duties on foreign goods is based, when at an ad valorem rate, on the foreign market price and, of course, such a price includes taxes paid by the purchaser.

"While the measure is proposed as a means of giving aid to the British by facilitating the sales of their products in this country, it is in fact a radical tariff reduction by a blanket procedure.

"The bill will have strong support and if passed will have the immediate effect of reducing the American selling price of many imported papers. Some of these papers are:

"Carbonizing tissue and other high grade tissue papers imported from the United Kingdom, dutiable at various rates. These papers are now subject to a British war tax of 33 1/3 per cent.

"Typewriting and duplicating paper from the United Kingdom, on which the war tax is 33 1/3 per cent.

"All forms of groundwood paper imported from Canada. The Canadian sales tax is 8 per cent.

"Pulpboard in rolls from Canada on which the sales tax is 8 per cent.

"Other paperboards and fiber boards imported from Canada on which the sales tax is 8 per cent.

"The above are just a few typical grades. The fact is, however, that practically every grade of dutiable paper imported from Canada or the United Kingdom would be affected by the bill.

"Other nations shipping paper to the United States also imposed taxes of various types, but the details are not immediately available.

"Because of its far reaching effects and the danger of its passage, the Import Committee recommends immediate action by the Paper Industry in opposition to the Cullen bill.

"A largely attended meeting of New York importers has already planned an aggressive campaign for the passage of the bill.

"The Temporary National Economic Committee, headed by United States Senator O'Mahoney, has issued a monograph on Industrial Concentration and Tariffs in which several types of paper are held to be affected by minor monopolistic elements, fostered by tariff protection. The monograph lists M. G. Sulphite wrapping paper, M. G. Kraft wrapping paper, leatherboard, cigarette paper, vegetable parchment paper and 'book paper containing groundwood,' as those grades of paper in which 'a substantial reduction of the duty would increase imports and lower prices.'"

"The report can and undoubtedly will be used as the basis for an attack on tariff rates on the commodities listed. The report takes no account of the profits now earned by companies producing the grades listed, but assumes that if four companies produce more than 75 per cent of the domestic output there must be a monopolistic tendency in that product.

"The report was written by Clifford L. James, associate professor of economics at Ohio State University, assisted by other economists. The Temporary National Economic Committee, while sponsoring and publishing the report, specifically disclaims any acceptance of the opinions of the authors. The paper items in this report are included in a list of 317 commodities with a 'high degree of industrial concentration.'"

Gray Attends Annual Paterson Sales Meeting

● W. J. Gray, general manager of the Paterson Pacific Parchment Company, San Francisco, made a trip to headquarters at Bristol, Pa., this month for the annual general sales meeting.

Paper Mill Operations Continue at High Rate

● Paper mills in the United States produced at 90.9 per cent of their capacity during the week ended December 21, according to the weekly summary issued by the American Paper and Pulp Association, compared with 90.6 per cent in the week preceding and 93.9 per cent in the corresponding week a year ago.

Paper board mills operated at 80 per cent of capacity during the week ended December 21, as against 79 per cent in the week before, 78 per cent two weeks before, and an average of 71 per cent for the month of December, 1939, according to the National Paperboard Association.

Zellerbach Christmas Party

● "Outstanding!" was the way the 200 people who attended the Christmas party of the Zellerbach Recreation Club at San Francisco's Dawn Club, December 18th, described the affair.

Following a buffet supper, there was a show that lasted two hours. The show was in the nature of a Gridiron Club affair, in which company executives were taken off in clever skits.

Following the show, dancing was enjoyed and floor prizes given out. There were no speeches.

Commercial Paper Acquires New Cover Line

● The Commercial Paper Company, San Francisco, of which Marcus Alter is president, has announced that it has taken on the Herculean line of cover paper, manufactured by the American Writing Paper Company.

Commercial will stock the entire line consisting of 14 color, two finishes, three sizes, and three weights.

O'Farrell Retires After 42 Years With Zellerbach

● A. G. O'Farrell, for the past 42 years with the Zellerbach Paper Company, San Francisco, has retired.

At the time of his retirement Mr. O'Farrell was the San Francisco Division purchasing agent. His place has been taken by Frank Farley.

Bonestell Visits Northwest Paper Mills

● H. S. Bonestell Jr., president of Bonestell & Co., San Francisco, spent 10 days early this month visiting various paper mills in the Northwest.

D. L. Maxwell With Paterson Parchment

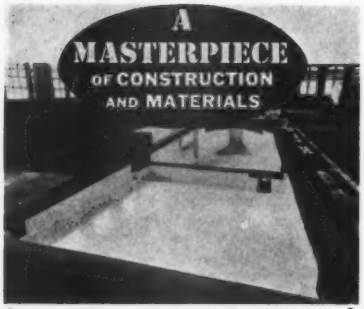
● D. L. Maxwell, formerly with The Tissue Company as Pacific Coast representative is now with the Paterson Pacific Parchment Company.

Zellerbach Paper Issues 18th Poster

● The eighteenth in the Zellerbach Paper Company's series of Reminder Selling Posters features direct mail advertising in dramatic fashion.

Much favorable comment has been aroused by this series designed to help the printer.

At the Zellerbach Recreation Club Christmas Party, December 18th, at the Dawn Club in San Francisco. Left to right, VICTOR E. HECHT, Vice President; A. CHIAPPELLONE; I. ZELLERBACH, Chairman of the Board; FRANK C. STRATFORD, Manager, San Francisco Division; and, LOUIS COLTON, Vice President.



Whether it is a new installation, a relining or a repair job, it takes specialized experience to produce a job that is dependable and economical for a number of years.

Again and again Semco relinings prove quality is real economy.

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Pulping Program At New York Tappi Meeting

● Two important sessions at the annual meeting of the Technical Association of the Pulp and Paper Industry to be held at the Roosevelt Hotel, New York, N. Y., on February 17-20, 1941, will be sponsored by the Acid Pulping Committee and the Mechanical Pulping Committee of which H. A. DuBois of the Kimberly-Clark Corporation and Lyman Beeman of the St. Regis Paper Company are chairmen, respectively.

Following are some of the papers to be presented at the Sulphite (Acid Pulping) session:

1. "The Twelve Knife Chipper," by N. P. Wardwell, Carthage Machine Company, Carthage, N. Y.
2. "Experiments in Pulping Douglas Fir by the Acid Sulphite Process," by G. H. Chidester and J. N. McGovern, Forest Products Laboratory, Madison, Wis.
3. "Comparison of Soda-Base and Calcium-Base Cooking Acids in the Preparation of Sulphite Pulps From Mixtures of Spruce and Fir," by M. O. Schur, Brown Company, Berlin, N. H.
4. "Sulphite Liquor Treatment," by Guy Howard, Marathon Paper Mills Company, Rothschild, Wis.
5. "The Equilibrium Relations Between Sulphur Dioxide and the Cooking Acid Solutions in the Milk and Lime System," by R. P. Whitney, Massachusetts Institute of Technology, Cambridge, Mass.

The papers to be presented in the Groundwood (Mechanical Pulping) Session are the following:

1. "Refining of Tailings," by Anton J. Haug, Nashua, N. H.
2. "The Trimbey-Walker Whirlpool Riffler," by E. J. Trimbey, Trimbey Machine Company, Glens Falls, N. Y.
3. "The Roberts Grinder," by A. E. Bartlett, Algonquin Paper Company, Ogdensburg, N. Y.
4. "Drainage Resistance of Groundwood Pulp," by W. O. Hisey, New York State College of Forestry, Syracuse, N. Y.

Soda and Kraft

● Following is the tentative program of papers to be presented at soda and kraft sessions under the chairmanship of Paul Hodges of Brunswick, Ga., and S. D. Wells of the Institute of Paper Chemistry.

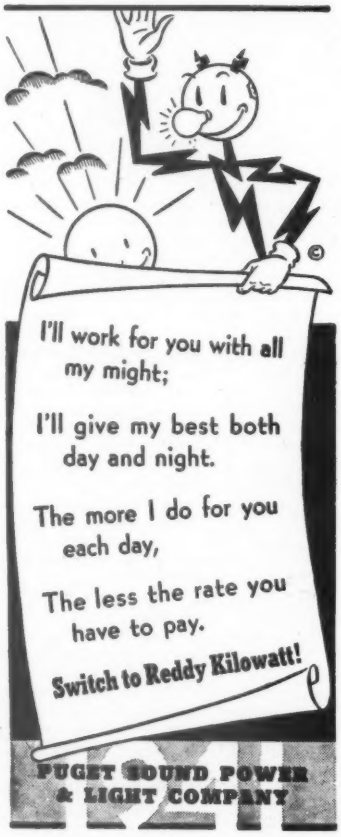
1. "Suitability of High Density, High Summerwood Slash Pine for Kraft and High Grade Papers," by S. L. Schwartz and M. W. Bray, Forest Products Laboratory, Madison, Wis.
2. "Pulping Red Gum by the Alkaline Processes, I. The Effect of Cooking Variables on the Yield and Quality," by M. W. Bray and J. S. Martin, Forest Products Laboratory, Madison, Wis.
3. "Chemical and Physical Characteristics of Soda Pulp," by John Franciewitz and N. I. Bearse, Champion-International Company, Lawrence, Mass.
4. "Some Fundamental Factors to be Consolidated in Deinking Waste Papers," by A. O. Bragg, Diamond Alkali Company, New York, N. Y.
5. "Kraft Pulping with Low Sulphidity," by S. D. Wells and K. A. Arnold, Institute of Paper Chemistry, Appleton, Wis.
6. "The Possibility of Using Gypsum to Replace Sodium Sulphate, in Part, in the Kraft Recovery Process," by Otto Kress and W. H. Aiken, Institute of Paper Chemistry, Appleton, Wis.
7. "Operating Data on the Combustion Engineering Recovery System," by F. H. Rosencrants, Combustion Engineering Company, New York, N. Y.
8. "The Cottrell Precipitator in the Kraft Industry," by H. R. Murdock, Champion Paper and Fibre Co., Canton, N. C. and L. M. Roberts, Research Corporation, New York, N. Y.

Stock Preparation at TAPPI Annual Meeting

● The Stuff Preparation Committee of the Technical Association of the Pulp and Paper Industry will sponsor an all day session during the annual meeting of the Association at the Roosevelt Hotel, New York, N. Y., February 17-20, 1941. W. D. Harrison of the Riegel Paper Corporation, Riegelsville, N. J., is chairman of this committee.

Following are the papers to be presented:

1. "The Production of Pulp from the Fibrous Elements of Sugar Cane Bagasse," by S. D. Wells and J. E. Atchison, Institute of Paper Chemistry.
2. "The Pulping of Wheat Straw in the Rod Mill," by S. D. Wells and P. Anthony Forni, Institute of Paper Chemistry.
3. "Measuring and Recording Freeness Continuously," by A. B. Green, Consulting Engineer.


I'll work for you with all my might;
I'll give my best both day and night.
The more I do for you each day,
The less the rate you have to pay.
Switch to Reddy Kilowatt!
PUGET SOUND POWER & LIGHT COMPANY

4. "Theory and Practice of the Dilts-Cowles Hydra-Pulper," by E. M. Roots, Dilts Machine Company.
5. "Commercial Applications of the Sutherland Refiners," by D. M. Sutherland, Jr., Consulting Engineer.
6. "Disk Refiners in the Board Industry," by W. H. Hall, Bauer Bros. Company.
7. "Process Factors in the Commercial Beating of Wood Pulps" by Howard R. Gaetz, Consulting Engineer.
8. "Prosize and Certain Aspects of Rosin Sizing," by H. J. Hotz and T. T. Collins, Central Paper Company and H. L. Davis, Johnson & Johnson Company.
9. "Importance of Roll Pressures in Beating Stocks," by C. D. DeMers, Taylor Instrument Co.
10. "The Asplund Difibrator," by Paper & Industrial Appliances.

Papermaking Program For TAPPI Meeting

● Albert E. Bachmann of the Missisquoi Corporation and Chairman of the TAPPI Forming and Finishing Committee has announced the following program for the annual meeting of the Technical Association of the Pulp and Paper Industry to be held at the Roosevelt Hotel, February 17-20, 1941.

"The Calendering of Paper: I. Effect of Pressure on Sheet Properties," by G. E. Mackin, E. L. Kelly and P. K. Baird, Forest Products Laboratory.

"The Moisture Control of Cylinder Papers," by R. T. Mann, Foster Paper Company.

"A Contribution to the Konwledge of the Mechanics of Softening Paper," by A. H. Nadelmann, Glassine Paper Co.

"The Use of Urea-Formaldehyde Resins for High Wet Strength Paper Production," by Philip B. Taft, The Resinous Products and Chemicals Company.

"Continuous Coloring of Paper and Board," by F. A. Soderberg, General Dyestuffs Company.

"Copes Consistency Control," by Don Allhouse, Northern Equipment Company.

"Enzyme Conversion," by Alexander Frieden, Stein, Hall Mfg. Company.

"Tissue Formation Operating Problems," by H. G. Specht, Eastwood-Nealley Corporation.

"Water Characteristics of the Wet End of the Paper Machine," by P. M. Loddengaard, Bulkley, Dunton Pulp Company.

"Design and Performance of Supercalendar Winders," by W. M. Stocker, Cameron Machine Company.

"The Performance of the Stream-Flow Vat System on Nine Point," by J. R. Buchanan, The Harriman Company.

"Stabelite Resin — A Hydrogenated Rosin for Sizing," by J. H. Long and A. C. Dreshfield, Hercules Powder Company.

TAPPI Program on Fundamental Research

Although there will be a number of papers of a fundamental character presented at all sessions of the annual meeting of the Technical Association of the Pulp and Paper Industry at the Roosevelt Hotel, New York, on February 17-20, 1941, a group of special papers of this type will be presented under the sponsorship of the Fundamental Research Committee, of which Harry F. Lewis of the Institute of Paper Chemistry is chairman. These papers are the following:

"Determination of Cellulose by the Use of Hydroxyamines" by E. C. Jahn New York State College of Forestry.

"Electrokinetic Phenomena of Aqueous Clay Suspensions" by Karl W. Fries, Rhinelander Paper Company.

"The Relation of the Chemical Composition of Filler Pulps and the Color of White Urea-Formaldehyde Plastics" by Harry F. Lewis and George W. Ingle, Institute of Paper Chemistry.

"The Collodial Differentiation of Starches" by Harold H. Houtz, Crown-Zellerbach Corporation.

"An Investigation of the Collodial Behavior of Soap-Starch Systems with Special Reference to Viscosity Effects and Starch Differentiation" by Alfred M. Heald, Institute of Paper Chemistry.

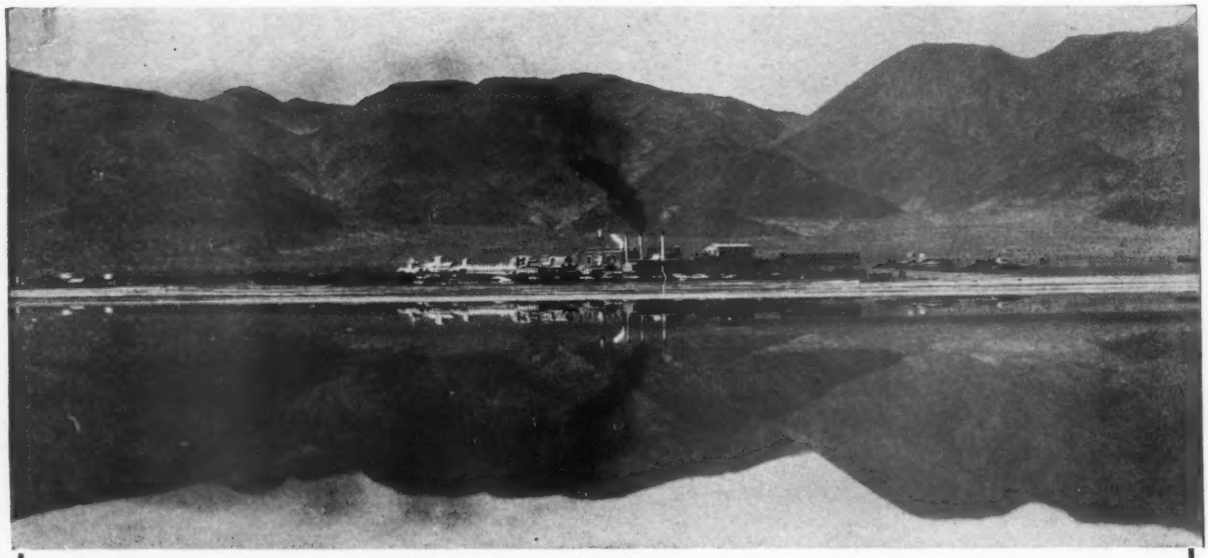
"Present Status of the Lignin Problem" by Harold Hibbert, McGill University.

"Relation between the Chain Length Distribution Curve and Tenacity" by H. Mark, Polytechnic Institute of Brooklyn.

Puget Sound's 1940 Shipments

● Press reports state that the Puget Sound Pulp & Timber Company of Bellingham, Washington, shipped 43,000 tons of pulp by water in 1940 through the Port of Bellingham. Rail shipments direct from Bellingham amounted to 71,000 tons and required 1,350 freight cars.

Sulphur delivered at Bellingham by eleven ships totaled 11,480 tons during the year.



Trona on Searles Lake, California

Muriate and Sulphate of Potash • Soda Ash Light and Dense • Borax and Boric Acid
Salt Cake and Desiccated Sodium Sulphate • Bromine

American Potash & Chemical Corporation

609 South Grand Avenue, Los Angeles, Calif. 70 Pine Street, New York City

"NON-USERS ARE THE LOSERS"

TENAX FELTS

50TH ANNIVERSARY

BOTH HAVE BENEFITED

This year we celebrate a half century of service to the paper-makers of America. All agree that we may justly be proud of the records made by TENAX FELTS.

We have cooperated constantly with the technical men and superintendents in many mills. Today our list of friends and pleased patrons continues to grow most agreeably. Thank you all sincerely!

"Non-Users Are the Losers"

LOCKPORT FELT COMPANY
NEWFANE, N. Y.

Pacific Coast Representative: ALAN C. DUNHAM, Portland, Ore.

Appleton WIRES

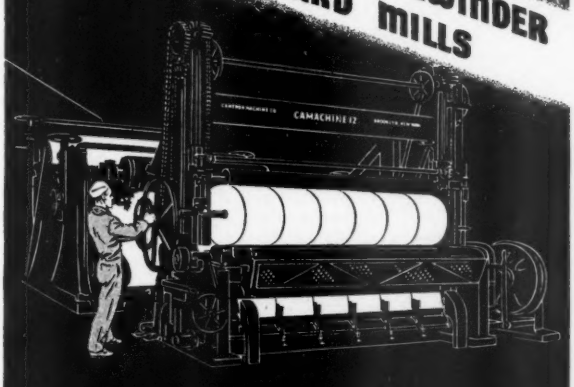
ARE GOOD WIRES

Pacific Coast Representative: WALTER S. HODGES, Pacific Bldg., PORTLAND, ORE.

Appleton Wire Works, Inc. Appleton, Wis.

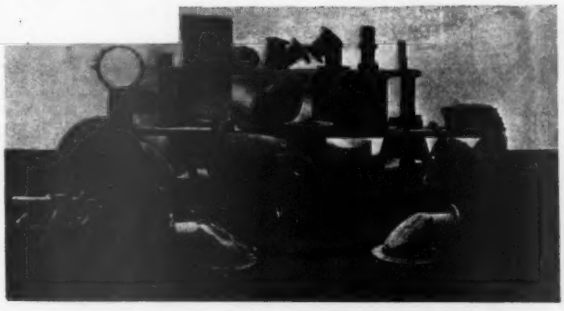
CAMACHINE 12

FOR USE AS WINDER OR REWINDER IN PAPER OR BOARD MILLS



CAMERON MACHINE COMPANY
61 POPLAR ST. - - - - BROOKLYN, N. Y.

ESCO STAINLESS ALLOYS



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VANCOUVER
1500 The Royal Bank Bldg.

ESCO

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2724 1st Ave. So.

MILWAUKEE
3636A North 14th St.

APPLETON WIRE WORKS, INC.
The ORR FELT & BLANKET CO.
ASTENHILL ASBESTOS DRYER FELTS
AMERICAN WRINGER CO., INC.
WALTER S.
HODGES
paper-machine clothing & rolls
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Pacific Building PORTLAND, OREGON Telephone Beacon 9354

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DRAPER Felt
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CANTON, MASS.

★ High Quality
★ Iron Free
★ Anhydrous
SODIUM SULPHATE
- SALT CAKE - SALT
★ Commercial samples are available from our new plant at Dale Lake, California
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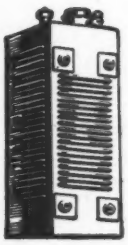
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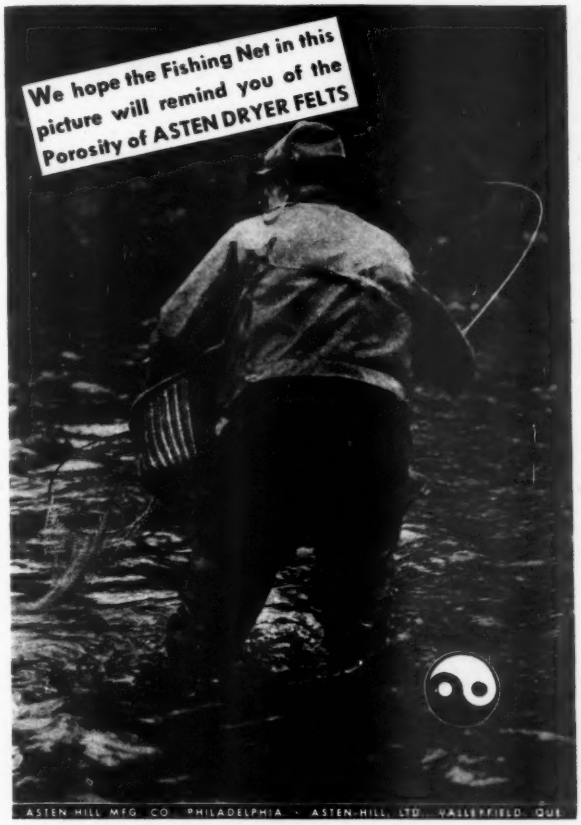
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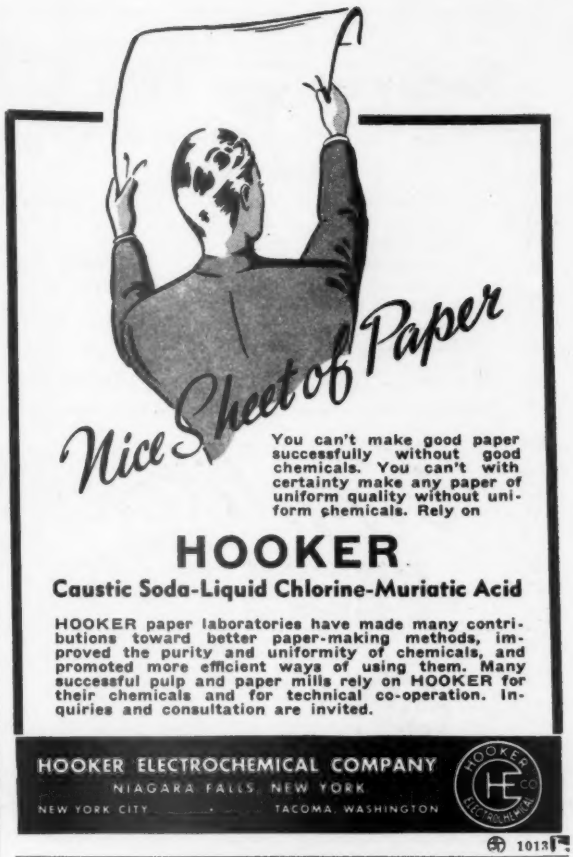
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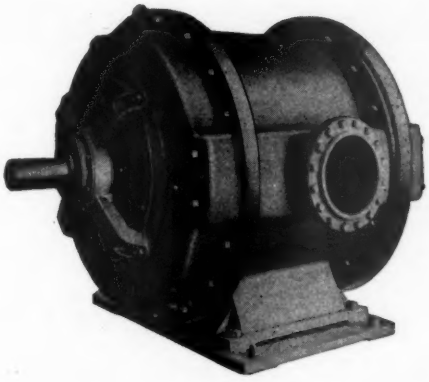

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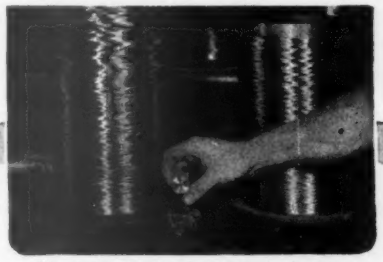

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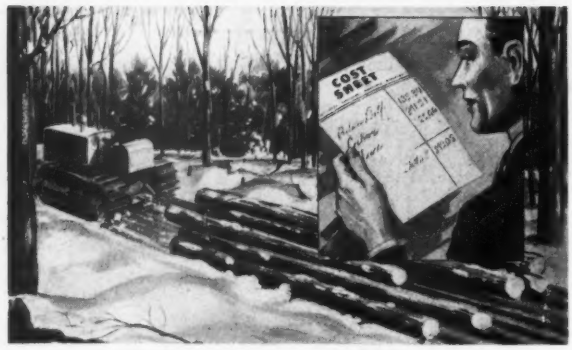

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INDEX OF ADVERTISERS

A
Albany Felt Co. ..... Inside Front Cover
American Potash & Chemical Co. 42
Appleton Wire Works 43
Appleton Woolen Mills 46
Asten-Hill Manufacturing Co. .. 45

B
Bagley & Sewall Co. 46
Beloit Iron Works 1
Black Clawson Co. 2
Bulkley, Dunton Pulp Co. 4

C
Cameron Machine Co. 43
Chase & Co., R. E. 47
Chromium Corp. of America ... 46

D
Desert Chemical Co. 44
Dilts Machine Works 2
Draper Brothers Co. 44
Drew & Hoffman 46

E
Eastwood-Nealley Corp. 37
Edison Storage Battery Co. 44
Electric Steel Foundry Co. 43

F
Ferguson & Co., Hardy S. 47
Freeport Sulphur Co. 48

G
Great Western Division, The Dow Chemical Co. 33

H
Hardy, George F. 47
Hodges, Walter S. 44
Hooker Electrochemical Co. 45

L
Lindsay Wire Weaving Co. 45
Lockport Felt Co. 42

M
Marshall & Barr 47
Merrick Scale Mfg. Co. 46

N
Nash Engineering Co. 45
Northwest Filter Co. 46
Northwest Lead Co. 46
Norton Co., The ..... Outside Back Cover

P
Pacific Coast Supply Co. 41
Perkins Goodwin Co. 47
Puget Sound Power & Light Co. 40
Puget Sound Pulp & Timber Co. 35
Pulp Bleaching Co. 40
Pusey & Jones Corp. 46

R
Rayonier Incorporated 30
Ross Engineering Corp. 46

S
Schoenwerk, O. C. 47
Selden, Stanley 47
Shartle Brothers Machine Co. 2
Shell Oil Co. 47
Shuler & Benninghofen 48
Smith, W. G. E. 47
Stebbins Engineering Corp. 40
Stetson-Ross Machine Co. 46

T
Taylor Instrument Companies ..... Inside Back Cover
Texas Gulf Sulphur Co. 3

W
Waterbury & Sons Co., H. 44
Western Gear Works 46
Weyerhaeuser Timber Co. 46